



## 1. Application details

### 1.1. Permit application details

Permit application No.: 547/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Yilgarn Mining Limited

### 1.3. Property details

Property: E69/982  
E69/1252  
E69/1550  
E69/2011  
Local Government Area: Shire Of Menzies  
Colloquial name: Mining Tenements E69/982, E69/1252, E69/1550, E69/2011

### 1.4. Application

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

## 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 110: hummock grasslands, shrub steppe, red mallee over spinifex and <i>Triodia scariosa</i> (Shepherd et al 2001, Hopkins et al 2001).	The clearing as proposed consists of a long, linear area with a number of smaller, linear areas branching off. Almost half of the long, linear area falls within the Plumridge Lakes Nature Reserve with the route/area within the Reserve chosen to minimise disturbance to the local ecosystem and avoid significant plant communities (Minesite Rehabilitation Services 2005). The local area, including the areas under application, has been burnt by previous fire activities and the vegetation is in various stages of recovery (Minesite Rehabilitation Services 2005).	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	It has been acknowledged in the flora survey that limited botanical survey work has been conducted in this area (Minesite Rehabilitation Services 2005). The flora survey provided was conducted in January 2005 and was restricted to the proposed access track and its immediate surroundings (Minesite Rehabilitation Services 2005).

The areas under application consist of the most common vegetation community within the Nature Reserve and surrounding area (Minesite Rehabilitation Services 2005). The areas under application consist of plains and lower dunes. Dominant understorey species include *Triodia* spp, *Eriachne* spp, and *Eragrostis* spp with *Eucalyptus* the dominant upper storey species (Minesite Rehabilitation Services 2005). On the lower dunes the dominant species are *Eucalyptus* spp, *Eremophila* spp, *Acacia* spp and *Scaevola* spp (Minesite Rehabilitation Services 2005). Information from the proponent indicates that only ground storey and small mid storey vegetation would be removed with the large trees and shrubs being retained (avoided) (Minesite Rehabilitation Services 2005).

### 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 occurs within the IBRA Bioregion of the Great Victorian Desert, which is known to have a high level of biodiversity (Minesite Rehabilitation Services 2005). In relation to this application, the clearing is to be restricted to the most common vegetation type in the local area and located on sand dunes of the least relief to minimise blow-outs (Minesite Rehabilitation Services 2005).

The area under application also extends into the Plumridge Lakes Nature Reserve, CALM has no objection to the clearing as proposed. The track could potentially be used by CALM for management purposes. However, should CALM not require the track, they have set rehabilitation standards which have been included by the proponent on their Ground Disturbing Approval Application (GDAA).

Furthermore, the proposed clearing occurs on a sandier soil type in the northern section of the Reserve rather than the better soils located in the southern section, which has greater flora diversity (Minesite Rehabilitation Services 2005).

Given the long, narrow, linear nature of the area under application and the current extent of the vegetation type within the IBRA Bioregion (Minesite Rehabilitation Services 2005), it is considered that the vegetation proposed to be cleared does not comprise a higher level of biological diversity than that in the surrounding area.

**Methodology** Minesite Rehabilitation Services (2005) (DoE Trim Ref IN20897)  
Information provided by the proponent (DoE Trim Ref EI2607-2609)

#### (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**

An opportunistic fauna survey was conducted of the area under application with lizards, geckos, camels, dingos, kangaroos, birds and monitors observed (Minesite Rehabilitation Services 2005). Feral cat tracks were also observed (Minesite Rehabilitation Services 2005). There is potential for Priority and Specially Protected fauna to occur within the area under application (Minesite Rehabilitation Services 2005). However, given the nomadic nature and mobility of fauna in the region (Minesite Rehabilitation Services 2005) as well as the long, narrow, linear nature of the area under application, it is unlikely that the clearing as proposed would have a significant impact on endemic indigenous fauna (CALM 2005).

**Methodology** Minesite Rehabilitation Services (2005) (DoE Trim Ref IN20897)  
CALM (2005) Land Clearing Proposal Advice (DoE Trim Ref EI 2512)

#### (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 Declared Rare Flora were identified during the flora survey (Minesite Rehabilitation Services 2005), or are known to occur within a 100km radius of the area under application. The Priority 2 species, *Olearia arida* and a previously undescribed *Microcorys* spp. were identified within the mining tenement E69/892 (Minesite Rehabilitation Services 2005).

**Methodology** Minesite Rehabilitation Services (2005) (DoE Trim Ref IN20897)  
CALM (2005) Land Clearing Proposal Advice (DoE Trim No EI2512)

#### (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 Threatened Ecological Communities (TECs) were identified during the flora survey (Minesite Rehabilitation Services). In addition no TECs are known to occur within 100km of the area under application.

**Methodology** Minesite Rehabilitation Services (2005) (DoE Trim No IN20897)  
GIS Databases:  
- Threatened Ecological Communities - CALM 15/07/03

#### (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 at variance to this Principle**

The areas under application consist of Beard vegetation association 110, which has approximately 100% of its extent remaining (Shepherd et al 2001, Hopkins et al 2001). The State Government is committed to the National Objectives and Targets 2001-2005 (AGPS 2001) for biodiversity conservation which outlines a target that prevents the clearance of ecological communities with an extent below 30% of that present pre-European (Department of Natural Resources and Environment 2001, EPA 200). In relation to this application, the vegetation association represented is above this 30% target. The vegetation association under application is considered to be of 'least

concern' in terms of biodiversity conservation and the benchmark of 15% representation in conservation reserves (JANIS 1997) has been met (22.6% in reserves) (Shepherd et al 2001, Hopkins et al 2001).

**Methodology** Shepherd et al (2001)  
Hopkins et al (2001)  
AGPS (2001)  
Department of Natural Resources and Environment (2001)  
EPA (2000)  
JANIS (1997)

**(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**

There are no wetlands or watercourses within the areas under application. The vegetation under application is not wetland or watercourse dependent. It is unlikely that the vegetation under application acts a buffer to the Plumridge Lakes (salt lakes) given the distance from these lakes (over 8km).

**Methodology** GIS Databases:  
Hydrography, Linear - DOE 01/02/04  
Geodata, Lakes - GA 28/06/02

**(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 landscape of the areas under application is sand plains with occasional low dunes and red earth sands. Where there are bare patches from previous fire disturbances, there are no signs of overland water flow (Minesite Rehabilitation Services 2005) which indicates little risk of water erosion. The long, narrow, linear shape (approximately 5m wide) of the area under application and good vegetation cover either side, would also reduce the risk of wind erosion. Due to the nature of the areas under application, it is unlikely that the clearing as proposed would cause appreciable land degradation.

**Methodology** Minesite Rehabilitation Services (2005) (DoE Trim Ref IN20897)  
GIS Databases:  
- Soils, Statewide - DA 11/99

**(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**

Approximately half of the area under application occurs within the Plumridge Lakes Nature Reserve which is on the Register of National Estate. The proponent has provided a series of letters which outlines that CALM has no objection to the proposed clearing within this Reserve. In these letters CALM has indicated that they may use the access track for management purposes. However should CALM not require the track, a list of rehabilitation standards was provided by CALM which the proponent has since included in their Ground Disturbing Approval Application (GDAA) via addendum.

The clearing as proposed would provide (CALM) access to a previously inaccessible area in addition to providing a fire-control access track or acting as a fire break (Minesite Rehabilitation Services 2005).

Given that CALM approval has been obtained as well as the potential benefits of the clearing to the management of the Reserve, it is considered that the clearing as proposed is not at variance to this Principle.

**Methodology** Minesite Rehabilitation Services (2005) (DoE Trim Ref IN20897)  
Information provided by the proponent (DoE Trim Ref EI2607-2609)  
GIS Databases:  
- CALM Managed Lands and Waters - CALM 01/08/04

**(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**

Given that the groundwater within the areas under application is considered to be hypersaline (>35,000mg/L) and the long, linear shape of the proposed clearing, it is unlikely that the clearing as proposed would have a significant affect on groundwater quality.

The surface water within the local area of the proposed clearing consists of salt lakes, which are expressions of the saline groundwater at the surface. As there are no drainage lines within the area under application running

towards these salt lakes and given that the area receives low rainfall (200mm annually), it is unlikely that the clearing as proposed would have a significant impact on surface water quality.

**Methodology** GIS Databases:  
 - Groundwater Salinity, Statewide - 22/02/00  
 - Hydrography, Linear - DOE 01/02/04  
 - Rainfall, Mean Annual - BOM 30/09/01

**(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**  
 As there are no drainage lines within the area under application and given that the area receives little rainfall (mean annual average is 200mm), it is unlikely that the clearing as proposed would exacerbate the incidence of flooding.

**Methodology** GIS Databases:  
 - Rainfall, Mean Annual - BOM 30/09/01  
 - Hydrography, Linear - DOE 01/02/04

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

**Comments**  
 There is no other RIWI Act Licence, Works Approval or EP Act Licence issues that will affect the area that has been applied to clear.

There is a Native Title Claim over the area under application by the Wongatha peoples. However, mining tenements for purposes consistent with the clearing have been granted so therefore the granting of a clearing permit is not a future act under the Native Title Act. Information has been received from DoIR that the southern boundary of the mining tenement (E60/2011) that was part of the application and was pending no longer extends beyond the northern boundary of the Plumridge Lakes Nature Reserve and is, therefore, no longer part of this application.

**Methodology**

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mineral Exploration	Mechanical Removal	9	<b>Grant</b>	<p>The assessing officer has addressed the Clearing Principles and the clearing as proposed is not at variance to them.</p> <p>The original application included mining tenements E69/982, E69/1252, E69/1550, E69/2011. E69/2011 which remains pending has been re-aligned. Consequently, the area applied to be cleared no longer falls within this tenement.</p> <p>Approximately half of the area under application is located within the Plumridge Lakes Nature Reserve. CALM has raised no objection to the proposed clearing within this Reserve as it could be used by CALM for management purposes. However, should CALM not require the track, CALM have set rehabilitation standards which have been included by the proponent on their Ground Disturbing Approval Application (GDAA). The assessing officer recommends that the permit be granted irrespective of whether the track remains or is subsequently rehabilitated.</p> <p>Therefore the assessing officer recommends that this permit be granted.</p>

**5. References**

AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.

CALM (2005) Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref EI2512.

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.

EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority.

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.

JANIS Forests Criteria (1997) Nationally agreed criteria for the establishment of a comprehensive, Adequate and Representative reserve System for Forests in Australia. A report by the Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee. Regional Forests Agreement process. Commonwealth of

Australia, Canberra.  
Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.  
Minesite Rehabilitation Services (2005) Great Victoria Desert Proposed: Flora Survey of the Plumridge Lakes Nature Reserve A34605 and E69/982. Prepared for Yilgarn Mining Ltd. DoE Trim Ref IN20897  
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)