



## 1. Application details

### 1.1. Permit application details

Permit application No.: 342/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Croesus Mining N.L.

### 1.3. Property details

Property: M30/122

M30/48

Local Government Area: Shire Of Menzies

Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2		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 502; medium woodland, Goldfields blackbutt and red mallee (Hopkins et al. 2001, Shepherd et al. 2001)	Woodland with eucalyptus species and mid canopy and intact understorey including Eremophilla sp. and Acacia sp. (site visit 09/03/2005)	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	On site visit (09/03/2005) the area under application had been recently disturbed by exploration drilling. Vegetation that had not been disturbed was in good condition and representative of the vegetation community in the broader area.

## 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**

During a site visit to inspect the area under application, it was noted that a section had been recently disturbed by exploration drilling completed within the exemptions outlined in Schedule 1 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004.

The remaining vegetation within the area under application is in good condition and representative of the vegetation community in the broader area. The vegetation community is widespread and therefore the clearing is not considered likely to be at variance with this Principle

Methodology Site visit 09/03/2005

### (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**

The proposed clearing is located within an area with a history of disturbance and some clearing for exempt purposes has been undertaken. It is unlikely that any Specially Protected or Priority species in habitat the area as the majority found in this region have special habitat requirements. For example the Mallee Fowl requires an abundant litter layer which was seen to be absent from the photos provided by the proponent.

Methodology Information from proponent (KGI218)

### (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**

No Declared Rare or Priority Flora are recorded within 30km of the proposed clearing. Therefore this proposal is not likely to be at variance with this Principle.

**Methodology** GIS Database:  
Declared Rare and Priority Flora List - 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 significant ecological community.**

**Comments** **Proposal is not likely to be at variance to this Principle**  
There are no Threatened Ecological communities within 30km of the proposed clearing. Therefore this proposal is not likely to be at variance with this Principle.

**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 at variance to this Principle**  
The State Government is committed to the National Objectives Targets for Biodiversity Conservation 2001-2005 (AGPS 2001) which includes a target that prevent clearance of ecological communities with an extent below 30% of that present pre-1750 (Department of Natural Resources and Environment 2002; EPA 2000). The vegetation at the site is a component of Beard Vegetation Association 502 (Hopkins et al. 2001) of which there is ~100% of the pre-European extent remaining (Shepherd et al. 2001). This vegetation type is therefore of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment 2002).

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation Status**	% in reserves/CALM-managed land
IBRA Bioregion – Murchison	28,206,195	28,206,195	100	Least concern	
Shire - Menzies	No information available				
Beard vegetation association - 502	48,474	48,474	100.0	Least concern	0.0

\* Shepherd et al. (2001)

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

**Methodology** Hopkins et al. (2001)  
Shepherd et al. (2001)  
Department of Natural Resources and Environment (2002)  
EPA (2002)

**(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**  
A non-perennial watercourse lies adjacent to the area under application. The aerial photograph provided by Croesus Mining NL shows a line of denser vegetation following this watercourse and this denser vegetation is not present in the proposed clearing area.

**Methodology** Aerial photograph provided by Croesus Mining NL  
GIS Database:  
Rivers 250K - GA

**(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 proposed area of clearing is in a region that receives an average annual rainfall of 300mm and an average annual evaporation rate of 3000mm-3200mm, so there is little surface flow during normal seasonal rains. Therefore erosion or appreciable land degradation from water flow is unlikely to occur.

**Methodology** GIS Databases:  
Evaporation Isopleths - BOM 09/98  
Rainfall, Mean Annual - BOM 30/09/01

**(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**  
No conservation areas were identified within 30km of the area under application.

**Methodology** GIS Database:  
CALM Managed Lands and Waters - CALM 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 area under application is not within a Public Drinking Water Source Area (PDWSA). The groundwater within the area is saline (1000-3000mg/L), therefore it is unlikely that the clearing as proposed would have a significant effect on groundwater quality.

With the area under application receiving little rainfall (~300mm per annum) and as the waterbody adjacent to the area under application is a non-perennial stream, it is also unlikely that surface water quality would be effected by the proposed clearing.

**Methodology** GIS Databases:  
PDWSA Protection Zones - DOE 7/1/04  
Evaporation Isopleths - BOM 09/98  
Rainfall, Mean Annual - BOM 30/09/01  
Lakes 1M - GA 01/06/00  
Grounwater Salinity, Statewide - 22/02/00  
Groundwater Provinces - WRC 98  
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 of flooding.**

**Comments** **Proposal is not likely to be at variance to this Principle**  
The proposed area of clearing is in a region that has low annual rainfall (300mm) and a high annual evaporation rate (3000-3200mm) so there is little surface flow during normal seasonal rains. The waterbody adjacent to the area under application is non-perennial and it is unlikely that the clearing as proposed would have a significant impact on peak flood height or duration.

**Methodology** GIS Databases:  
Evaporation Isopleths - BOM 09/98  
Rainfall, Mean Annual - BOM 30/09/01  
Hydrographic Catchments - Catchments - DOE 23/3/05

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

**Comments**  
The Department of Industry and Resources (DoIR) has no objections to the clearing as proposed.

There is a Native Title Claim over the area under application by the Maduwongga and 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.

**Methodology** Submission from DoIR (NI999)

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mining	Mechanical Removal	2	Grant	The assessable criteria have been addressed and the clearing as proposed is not at variance with any of the Principles.  The assessing officer recommends that the permit should be granted.

**5. References**

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.  
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.