



## 1. Application details

### 1.1. Permit application details

Permit application No.: 288/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Central Norseman Gold Corporation Limited

### 1.3. Property details

Property: M63/36

Local Government Area:

Colloquial name: Scotia Mine

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
15.4	0	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 9: Medium woodland; coral gum ( <i>Eucalyptus torquata</i> ) & Goldfields Blackbutt ( <i>E. lesoufii</i> ) (Shepherd et al. 2001) (Hopkins et al. 2001).		Pristine: No obvious signs of disturbance (Keighery 1994)	

## 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**

Given the disturbed nature of the area, the small (~15 ha) of clearing, and that the communities represented are widespread in the Goldfields, it is not likely that the native vegetation has a high level of biological diversity.

**Methodology**

### (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**

Based on the limited available information regarding the degree of disturbance of the vegetation under assessment and the incomplete records of known significant fauna in the area it is difficult to determine the potential impact of the proposed clearing on local fauna. However, given the extensive nature of the vegetation type under assessment in the local context, and the relatively small area proposed to be cleared, there appears to be suitable habitat available in adjacent uncleared areas to sustain local fauna. CALM recommends that, upon completion of mining activities, the proponent be required to undertake a comprehensive vegetation rehabilitation program using endemic provenance correct flora species.

**Methodology** CALM 2004

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

**Comments** **Proposal may be at variance to this Principle**

There appears to be a medium probability of the proposed clearing to be at variance with Principle (c). Whilst no Declared Rare and Priority Flora have been recorded on the Scotia mining tenement, there is a

medium possibility, based on records for similar vegetation that significant flora are likely to inhabit the vegetation under assessment. CALM recommends that a flora survey be undertaken to assess the biological and conservation value of the vegetation proposed to be cleared. The findings of which should be disseminated to CALM for proper appraisal and management advice.

**Methodology** CALM 2004  
 GIS database:  
 - Declared Rare and Priority Flora List - CALM 13/08/03.  
 (The comprehensiveness of the database is dependent on the amount of survey carried out in the area and does not necessarily represent a comprehensive listing; CALM 2004).

**(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 appears to be a low probability of the proposed clearing to be at variance with Principle (d) as there are no known Threatened Ecological Communities identified within the 50km local area of the proposal.

**Methodology** CALM 2004  
 GIS Database:  
 - Threatened Ecological Community Database - CALM 15/07/03.  
 (The comprehensiveness of the database is dependent on the amount of survey carried out in the area and does not necessarily represent a comprehensive listing; CALM 2004).

**(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	Current Area (ha)	Remaining extent (ha)	%*	Conservation status**	In Reserves/CALM-managed land, %
IBRA Bioregion; Coolgardies	12,917,718	12,719,084	98.5	Least concern	
Shire - Dundas	92,725,000	92,725,000	100.0	Least Concern	
Beard vegetation type remaining: - 9: Medium woodland; Coral Gum & goldfields blackbutt	250,894	250,183	99.7	Least concern	5.7

\* (Shepherd et al. 2001)  
 \*\* (Department of Natural Resources and Environment 2002)

**Methodology** Shepherd et al. (2002).  
 Department of Natural Resources and Environment (2002).  
 GIS Database:  
 - Pre-European Vegetation - 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 at variance to this Principle**  
 No watercourse or wetland within 1500m of the proposal.

**Methodology** GIS Database:  
 - Hydrography, linear - DOE 01/02/04.

**(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**  
 Low gradient (2.5%) and requirement for rehabilitation is likely to minimise land degradation.

**Methodology** GIS Database:  
 - Topographic Contours, Statewide - DOLA 12/09/02.

**(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**

Based on the proximity of the proposed clearing to the listed conservation areas there appears to be a low probability of the proposed clearing to be at variance with this principle .

**Methodology** GIS Database:  
- CALM Managed Lands and Water - 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**

Due to the small size of the clearing proposal, low annual rainfall of 250mm per annum (and therefore low volumes of runoff) and high evaporation rates (2.2m per annum), it is unlikely that significant additional volumes of surface flow will reach the playa lake system with the exception of during large rainfall events. Regional groundwater at the site of the proposal (14,000 - 35,000 mg/l) and below the playa lake system (>35,000 mg/l) to the east is saline. Additional recharge resulting from clearing will have little impact on groundwater quality.

**Methodology** GIS Database:  
- Groundwater Salinity - Statewide - 22/02/00.  
- Hydrography, linear - DOE 01/02/04.  
- Isohyets - BOM 09/98.

**(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**

15.4ha of clearing in a low rainfall area (approx 250mm) is unlikely to exacerbate flooding in a broad valley of the playa lake system.

**Methodology** GIS databases:  
- Hydrography, linear - DOE 01/02/04.  
- Contours, Statewide - DOLA 12/09/04.  
- Isohyets - BOM 09/98.

**Planning instrument or other matter.**

**Comments Proposal is not at variance to this Principle**

Council (Shire of Dundas) offer no objections to the application.

**Methodology** Shire of Dundas (2004).

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)	trees	Decision	Comment / recommendation
Mining	Mechanical Removal	15.4	0	Grant	All assessable criteria have been addressed and no objections were raised. The assessing officer therefore recommends that the permit should be granted.

**5. References**

- CALM (2004) Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref HD19304.
- 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.