



## 1. Application details

### 1.1. Permit application details

Permit application No.: 420/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: South Kal Mines Pty Ltd

### 1.3. Property details

Property: PART LOT 50 ON PLAN 226299  
Local Government Area: City Of Kalgoorlie/Boulder  
Colloquial name: Hampton East Location 50

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2.65		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 (Eucalyptus torquata) & goldfields blackbutt (E. le soufii), also Medium woodland; red mallee group; and Beard vegetation association 468 - Medium woodland; salmon gum & goldfields blackbutt. (Shepherd et al. 2001, Hopkins et al. 2001)	Woodlands of Eucalyptus torquata, E. le soufii with sclerophyll shrubs on subcropping mafic basalt, dolerite, gabbro and felsic porphyry.  Loamy plain with very scattered Eucalyptus salmonophloia with very scattered understorey. (Western Botanical, 2004)	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Observations during site visit (05/05/2005): The area to the north of Mutturoo Pit is heavily disturbed from earlier mining and exploration drilling. The trees are healthy but the understorey is heavily disturbed.  The area to be cleared for the abandonment bund around the small pit to the west of Mutturoo Pit consists of regrowth from mining activities in the early 1900's and is in good condition.  The area to be cleared for an abandonment bund around the small pit to the north-east of the Mutturoo Pit is very disturbed by earlier mining and exploration activities but has some large healthy trees.  All areas have been grazed by goats and goats were evident in the 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
	The vegetation communities covering the area under application are typical of the region and are not restricted in range. The area was heavily cleared in the early 1900's for firewood and has been disturbed by adjacent mining activities and historical mining and pastoral activities. (MBS Environmental, 2004). Grazing by goats has and continues to undermine the quality of the vegetation.  It is therefore unlikely that the clearing of vegetation as proposed would be at variance to this Principle.
<b>Methodology</b>	MBS Environmental - (2004)(DoE Trim No. IN19893) Western Botanical - (2004)(DoE Trim No. KGI665) Site visit - 05/05/2005

**(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**  
 Due to the disturbed condition of the vegetation under application (MBS Environmental 2004), and the location of the proposed clearing around existing mining pits, it is unlikely that the vegetation under application provides significant habitat for fauna indigenous to Western Australia.

**Methodology** MBS Environmental (2004)(DoE Trim No. IN19893)  
 Site visit - (05/05/2005)

**(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**  
 No rare or priority flora were identified during a flora survey of the project area (Western Botanical 2004). In addition no areas of Declared Rare or Priority Flora are known to occur within 20km of the proposed clearing.

**Methodology** Western Botanical (2004)(DoE Trim No. KGI665)  
 GIS databases:-  
 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 area of clearing.

**Methodology** GIS databases:-  
 Threatened Ecological Communities - CALM 12/4/05

**(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 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-European (Department of Natural Resources and Environment 2002; EPA 2000).

The vegetation within the areas under application consists of Beard Vegetation Association 9 and 468, of which there is approximately 99.7% and 100% of the pre-European extent remaining respectively (Hopkins et al. 2001 & Shepherd et al. 2001). These vegetation types are therefore of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment 2002). The vegetation under application has been disturbed through previous mining and grazing activities and continues to be undermined by goat grazing.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation Status**	% in reserves/CALM-managed land
IBRA Bioregion - Coolgardie	12,917,718	12,719,084	98.5	Least concern	
Shire - City of Kalgoorlie/Boulder		No information available			
Beard vegetation associations:					
9	250,894	250,183	99.7	Least concern	0
468	476,120	476,120	~100	Least concern	0

\* Shepherd et al. (2001)

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

**Methodology** AGPS (2001)  
 Department of Natural Resources and Environment (2002)  
 Shepherd et al. (2001)  
 Hopkins et al. (2001)  
 GIS databases:  
 - Pre-European Vegetation - DA 01/01  
 - Interim Biogeographic Regionalisation of Australia - EA 18/10/00

**(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 nearest lake to the proposed area of clearing is approx. 7km and the nearest watercourse is approx. 1km.

No riparian vegetation is within the areas under application.

**Methodology** GIS databases:-  
Rivers 250K - GA  
Lakes 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 mean annual rainfall in the area is 250mm and the mean annual evaporation rates is between 2600 - 2800mm. There is little surface flow during a normal rainfall season, therefore land degradation through erosion would be negligible. The small size of the areas under application also reduce the risk of land degradation on or off-site.

**Methodology** GIS databases:-  
Lakes 250K - GA  
Evaporation Isopleths - BOM 09/98  
Isohyets - 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**

There are no CALM managed lands or other conservation estates within 10km of the proposed area of clearing.

**Methodology** GIS databases:-  
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 proposal is not likely to affect surface water quality as there are no watercourses within the proposed clearing area. The mean annual rainfall is 250mm and the mean annual evaporation is 2600 - 2800mm as such run off is likely to be minimal. The low rainfall and high evaporation rate also infers low recharge rates.

**Methodology** GIS databases:-  
Groundwater Resources

**(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**

Given the small and scattered nature of clearing (2.65ha), the little surface flow due to low rainfall and high evaporation rates, and the distance to the nearest lake (7km) or watercourse (1km), the clearing as proposed is unlikely to be at variance with this principle.

**Methodology** GIS databases:-  
Rivers 250K - GA  
Lakes 250K - GA

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

**Comments** No comment

**Methodology**

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mining	Mechanical Removal	2.65	Grant	All assessable criteria have been addressed and the proposed clearing of native vegetation is not likely to be at variance with any of the Principles.  The assessing officer recommends that the permit should be granted.

## 5. References

- AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.
- 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.
- Keighery, BJ (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- MBS Environmental Pty Ltd (2004) Documentation accompanying application for a native vegetation clearance permit. TRIM ref. IN19893.
- 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.
- Western Botanical (February 2004) Flora, vegetation and habitats of the Harmony Gold Locations, Kambalda WA. TRIM ref. KGI665.

## 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)