



## 1. Application details

### 1.1. Permit application details

Permit application No.: 2473/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: HBJ Minerals Pty Ltd

### 1.3. Property details

Property: LOT 45 ON PLAN 226298 ( FEYSVILLE 6431)  
PART LOT 214 ON PLAN 220400 ( FEYSVILLE 6431)  
PART LOT 214 ON PLAN 220400 ( FEYSVILLE 6431)  
PART LOT 214 ON PLAN 220400 ( FEYSVILLE 6431)  
Local Government Area: City Of Kalgoorlie-Boulder  
Colloquial name:

### 1.4. Application

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

## 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 (E. torquata) & Goldfields blackbutt (E. lesouefi).  (SAC Bio Datasets 01/05/2008; Shepherd, 2006)	The three areas under application are for open pit mining and associated infrastructure (total area of 60ha). The areas are located approximately 30km south-east of the Kalgoorlie-Boulder town site.  The vegetation under application has been identified as two vegetation groups: - Transitional Eucalypt woodland, and - Eucalyptus salmonophloia woodland (MBS Environmental, 2007).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The areas under application have been subject to a history of mining activities and livestock grazing (MBS Environmental, 2007). Further, aerial photography for the area shows areas of disturbance from existing mining infrastructure and public roads.

## 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 under application is dominated by regionally widespread species that are common to a wide range of habitats of the region (MBS Environmental, 2007). A flora survey within the areas under application identified two vegetation groups; Transitional Eucalypt woodland and Eucalyptus salmonophloia woodland with the vegetation considered to be in a degraded condition (MBS Environmental, 2007).

The areas under application are adjacent to existing mining operation (Mt Martin Open pit) and have been subject to a history of extensive grazing and mining activities (MBS Environmental, 2007). Aerial photography for the area shows areas of disturbance from an adjacent open pit and associated infrastructure, and public roads.

Given the high level of disturbance from historical and existing activities, it is not considered likely that the areas under application comprise a high level of biological diversity.

**Methodology** Reference:  
- MBS Environmental (2007)  
GIS Database:  
- Lake Lefroy 1.4m Orthomosaic - DLI 02

**(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 may be at variance to this Principle**

A report by MBS Environmental (2007) advised that ten fauna species of conservation significance could potentially occur within the areas under application. Of these, the MBS Environmental (2007) report advises that:

- The Chuditch has not been sighted in the region in the last 20 years. It is considered unlikely that the Chuditch will be present in the area.
- Sightings of Malleefowl in the area are relatively recent. Malleefowl may be found in the project area.
- Bird species such as Peregrine Falcon, White-browed Babbler, Crested Bellbird (Southern) may utilise the notified area, but as the vegetation is widespread within the region the habitat present is unlikely to be 'significant' for these species.

MBS Environmental (2007) reported that all efforts will be taken to minimise clearing and to progressively rehabilitate so that habitats and fauna of conservation significance will not be impacted upon. Management strategies to be adopted (MBS Environmental 2007) include:

- Locating tracks so as to avoid large trees and shrubs and their root zones,
- Weed management programme,
- Retain trees (especially those with hollows) for bird, bat and reptile habitat where possible,
- Containing saline water in sumps to prevent soil contamination and plant death, and
- Stockpiling vegetation to be respread to provide habitat for fauna.

Given that the vegetation application may include suitable habitat for significant fauna in the local area, including malleefowl, the proposed clearing may be at variance to this Proposal.

To mitigate any impacts from the proposed clearing, fauna management conditions will be imposed.

**Methodology** Reference:  
- MBS Environmental (2007)

**(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**

There are three known records of the rare flora *Gastrolobium graniticum* within the local area (50km radius) with the closest known record being ~49kms west of the project area.

*Gastrolobium graniticum* is described on DEC's Florabase (WA Herbarium 1998-) as an erect, open shrub, to 2.5m high. Flowers are yellow, orange, and red, flowering in August-September. Occurs on sandy soils, granite and margins of rock outcrops, along drainage lines.

A flora survey conducted in November 2006 by Botanica Consulting Pty Ltd identified no rare flora within the areas under application (MBS Environmental, 2007). Given the habit of *Gastrolobium graniticum* (2.5 m shrub) it is unlikely to have been missed during the survey.

Given that no rare flora was identified within the areas under application, it is not considered likely that the vegetation to be cleared includes or is necessary for the continued existence of, rare flora.

**Methodology** References:  
- MBS Environmental (2007)  
- WA Herbarium (1998-)  
GIS Database:  
- SAC Bio Datasets 19/05/2008

**(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**

There are no known records of a Threatened Ecological Community (TEC) within the local area (50km radius). The nearest recorded TEC (Russell Range) is located approximately 310km south-east of the project area.

It is therefore not considered likely that the vegetation proposed to be cleared comprises the whole or part of or

is necessary for the maintenance of a threatened ecological community.

**Methodology** GIS Database:  
- SAC Bio Datasets 19/05/2008

**(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 vegetation under application is mapped within Beard Vegetation type 9, which has 99.7% of pre-European vegetation extent remaining (Shepherd, 2006).

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents the clearance of ecological communities with an extent below 30% of that present Pre-European settlement (Commonwealth of Australia, 2001). The vegetation type within the areas under application is above the recommended minimum of 30% representation.

Given the high representation of the vegetation type identified within and around the areas under application, the vegetation under application is not considered to be significant as a remnant in an extensively cleared area.

However, it is noted that the Beard vegetation type is not well represented in secure tenure.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregions*				
- Coolgardie	12 912 208	12 707 623	98.4	
Beard Vegetation types*				
9	240 509	239 898	99.7	7.8

\* (Shepherd, 2006)

**Methodology** References:  
- Commonwealth of Australia (2001)  
- Shepherd (2006)  
GIS Databases:  
- Pre-European Vegetation  
- Interim Biogeographic Regionalisation of Australia  
- SAC Bio Datasets 15/05/2008

**(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 is a minor non-perennial watercourse located approximately 170m from the areas under application. A flora survey of the areas under application identified two vegetation groups; Transitional Eucalypt woodland and Eucalyptus salmonophloia woodland (MBS Environmental, 2007), which are not considered to be wetland dependent vegetation.

Given the distance to the nearest watercourse and that no wetland dependent vegetation was identified within the areas under application, the vegetation applied to be cleared is not considered to be growing in, or in association with, an environment associated with a watercourse. Therefore, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** Reference:  
- MBS Environmental (2007)  
GIS Database:  
- Hydrography, linear

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

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

DAFWA (2007) advised that the areas proposed to be cleared are composed of the Moriarty land system, with a minor area of Gumland land system on the western side of the application area.

The Moriarty land system is low greenstone rises and stony plains supporting eucalypt woodlands with chenopod understoreys. Apart from the drainage zones, the soils of this land system are not regarded as being

prone to soil erosion unless their protective stony mantles are disturbed (DAFWA, 2007). Provided surface water is managed, this clearing is not likely to cause appreciable land degradation.

The Gumland land system comprises extensive pediplains supporting eucalypt woodlands with halophytic and non halophytic shrub understoreys (DAFWA, 2007). The soils of the alluvial plains and drainage tract land units are at risk of soil erosion if cleared and the protective stone mantles disturbed (DAFWA, 2007). Therefore, the proposed clearing may be at variance to this Principle.

A Flood Water Management Plan (Dioro, 2008) has been submitted by the proponent outlining the management of the drainage systems. Management actions to be undertaken include utilising existing tracks and firebreaks, stockpiling topsoil for use in rehabilitation and progressive rehabilitation of completed surfaces to minimise active areas exposed (MBS Environmental, 2007). These will assist in the avoidance of long-term land degradation.

To mitigate any impacts from the proposed clearing, conditions requiring revegetation will be imposed.

**Methodology**   References:  
- DAFWA (2007)  
- Dioro (2008)  
- MBS Environmental (2007)

**(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 conservation reserves within the area under application with the nearest reserves being DEC managed lands, located approximately 15km south-west (Kambalda Nature Reserve) and 18km north north-west (Lakeside Timber Reserve) of the proposed clearing.

The areas under application are not considered to contribute to, provide a buffer for, or provide an ecological linkage to any of these conservation areas. Furthermore, due to the high level of disturbance from historical and existing activities and the distance to the DEC Managed Lands, the clearing as proposed is not likely to have an impact on local conservation values.

**Methodology**   Reference:  
- MBS Environmental (2006)  
GIS databases:  
- DEC Managed Lands and Water

**(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 may be at variance to this Principle**

There is a minor non-perennial watercourse located approximately 170m from the areas under application. A flora survey of the areas under application identified two vegetation groups; Transitional Eucalypt woodland and Eucalyptus salmonophloia woodland (MBS Environmental, 2007).

DAFWA (2007) advised that the areas proposed to be cleared are composed of the Moriarty land system, with a minor area of Gumland land system on the western side of the application area. The Moriarty land system is low greenstone rises and stony plains. Apart from the drainage zones, the soils of this land system are not regarded as being prone to soil erosion unless their protective stony mantles are disturbed (DAFWA, 2007).

The Gumland land system comprises extensive pediplains supporting eucalypt woodlands with halophytic and non halophytic shrub understoreys (DAFWA, 2007). The soils of the alluvial plains and drainage tract land units are at risk of soil erosion if cleared and the protective stone mantles disturbed (DAFWA, 2007).

The proposed clearing may result in water erosion particularly in areas of stony plains. Water erosion of these soils and drainage into nearby surface water bodies may result in the deterioration of water quality. Therefore, the proposed clearing is may be at variance to this Principle.

To mitigate any impacts from the proposed clearing, conditions requiring revegetation will be imposed.

**Methodology**   References:  
- DAFWA (2007)  
- MBS Environmental (2007)

**(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**

With an average annual rainfall of approximately 250mm and an annual evaporation rate of approximately 2,600mm there is little surface flow during normal seasonal rains. Given the areas under application occur on a relatively flat landscape and there is little surface flow, the proposed clearing of 60 ha over 5 years is not likely to cause or increase the incidence or intensity of flooding.

**Methodology** GIS Databases:  
- Evaporation Isopleths  
- Isohyets  
- Topographic Contours, Statewide

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

**Comments**

The areas under application are within the Proclaimed Groundwater Area of Goldfields. Therefore any abstraction of groundwater would require a licence; however, this proposal of mining production is not associated with groundwater abstraction.

For Mineral Production, the applicant advised that they do not need a works approval as the mined ore will be processed offsite, and the dewatering will not be discharged to the environment (Dioro, 2008).

The City of Kalgoorlie-Boulder (2007) advised that there is no objection to the granting of a clearing permit. However, Development Approval from the City of Kalgoorlie-Boulder may be required for temporary facilities to be erected. However, the facilities will be erected within the mining tenement, and clearing of vegetation will not be necessary (Dioro, 2008).

The areas under application are located within Mining Lease M26/132 (also known as Part lot 214 on Plan 220400) and Lot 45 on Plan 226298.

There are two native title claims over the areas under application. These claims (WC98/027 and WC99/029) have been registered with the National Native Title Tribunal. However, the mining tenement have been granted in accordance with the future act regime of the Native Title Act 1993 and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the Native Title Act 1993.

Furthermore, Lot 45 on Plan 226298 is Freehold land; since the land is privately owned the Native Title has been extinguished under the Native Title Act. Therefore the clearing is considered to be a secondary approval and not a future act under the Native Title Act 1993.

**Methodology** References:  
- City of Kalgoorlie Boulder (2007)  
- Dioro (2008)  
GIS Databases:  
- Aboriginal Sites of Significance  
- Native Title Claims  
- RIWI Act, Groundwater Areas  
- RIWI Act, Surface Water Areas

#### **4. Assessor's comments**

**Comment**

The assessable criteria have been addressed and the clearing as proposed is may be at variance to Principles (b), (g) and (i).

#### **5. References**

- City of Kalgoorlie Boulder (2007) Direct Interest Submission. TRIM Ref DOC25185  
Commonwealth of Australia (2001) National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS, Canberra.  
DAFWA (2007) Land degradation advice. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. TRIM Ref ED1836  
Dioro (2008) Email from the applicant, including the Flood Water Management Plan. Dioro-South Kal Mine Operations. TRIM Ref DOC54663  
Harmony (2007) Flood Water Management Plan. Harmony Gold Pty Ltd. TRIM Ref ED1866  
Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.  
MBS Environmental (2007) Purpose Permit Application, Mt Martin Application Area and Hampton: Native Vegetation Management Plan and Assessment of Clearing Principles, January 2007, Prepared for South Kal Mines Pty Ltd, Martinick Bosch Sell Pty Ltd, Western Australia. TRIM Ref DOC16257

Shepherd, D.P. (2006). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.  
Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.calm.wa.gov.au/> (Accessed 19/05/2008).

## 6. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
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 DEC)