



## 1. Application details

### 1.1. Permit application details

Permit application No.: 857/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Midwest Corporation Ltd

### 1.3. Property details

Property: LOT 32 ON PLAN 9523 ( KOOLANOOKA 6623)  
Local Government Area: Shire Of Morawa  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.4		Mechanical Removal	Road construction or maintenance

## 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 352: Medium woodland; York gum. Beard vegetation association 631: Succulent steppe with woodland and thicket; York gum over Melaleuca thyoidea and samphire (Hopkins et al. 2001, Shepherd et al. 2001).	The proposal is for the purpose of road widening and therefore covers a long narrow strip adjacent to a roadway. Much of the surrounding area has been cleared for agriculture. Although the Beard vegetation associations listed for the area indicated that woodland and thicket may be present, this was not the case; perhaps as a result of the clearing disturbance experienced by the local area. Apart from this observation the condition of the vegetation was very good with little evidence of weed invasion, possibly due to the salt in the area. The native flora species that will be affected by this proposal include: samphire ( <i>Halosarcia</i> sp.), saltbush ( <i>Atriplex</i> sp.) and bluebush ( <i>Maireana</i> sp.) on bare ground. A group of 29 individuals of the DRF <i>Halosarcia bulbosa</i> will also be affected by the proposal.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The description of the vegetation under application was obtained both from a site visit conducted on Friday 21 October 2005, and a flora survey commissioned by the proponent.  ATA Environmental (2004) Koolanooka Iron Ore Project - Rail Easement Vegetation Assessment and Targeted Flora Survey. Site Visit, DoE Officer 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 at variance to this Principle**  
A survey of the Munkton Rd flora was completed by ATA Environmental on behalf of Midwest Corporation in 2004. They reported that the area 'is generally uniform in structure but varies in species composition depending on the concentration of salt in the clay soils. In general, it was noted that this area is dominated by a Low Open Heath comprising Samphire (*Halosarcia doleiformis* and isolated stands of *Halosarcia bulbosa* (DRF)), Saltbush (*Atriplex* sp.) and Bluebush (*Maireana* sp.) on bare ground.' That the area is dominated by only a handful of plant species is perhaps not unusual given the specialised environment created by the salt lake system. Thus

while the area is unique, its biodiversity is not considered to be high.

**Methodology** ATA Environmental (2004) Koolanooka Iron Ore Project - Rail Easement Vegetation Assessment and Targeted Flora Survey .  
Site visit, DoE Officer, 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 low structure of the vegetation, its proximity to the road and the small area that is proposed to be cleared, it is unlikely that a significant habitat for fauna will be lost. Therefore the proposal is not likely to be at variance to this Principle.

**Methodology** Site visit, DoE Officer, 2005.

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

**Comments** **Proposal is at variance to this Principle**

The proposed clearing will involve the removal of 29 individuals of the Declared Rare Flora species *Halosarcia bulbosa* (ATA Environmental 2004). The proponents commissioned a flora survey of the area to determine the extent of the DRF population and the possible impact that removing any individuals may have. The survey concluded that based upon the number of *H. bulbosa* located that the removal would have a limited impact on the population as a whole (ATA Environmental 2004). The proponent has approached the Minister for Environment for consent to remove the DRF. A Consent to Take will be granted with conditions that require: no more than the minimum number of plants to be removed; and that the road works do not change the surface hydrology of the area to impact upon the remaining DRF (CALM 2006). While a number of individual plants will be removed as a result of the proposal, it is not likely to affect the continued existence of the remaining population of *H. bulbosa*.

**Methodology** Site visit, DoE Officer 2005  
CALM, 2006 (DoE TRIM ref GD737)  
ATA Environmental (2004) Koolanooka Iron Ore Project - Rail Easement Vegetation Assessment and Targeted Flora Survey.  
GIS Database: Declared Rare and Priority Flora list - CALM 01/07/05.

**(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 at variance to this Principle**

The area under application falls approximately 10km from TEC (No 362) which requires a buffer zone of 6km. Another recorded TEC occurs 6km from the site being considered and this requires a 2km buffer zone. As the area under application is of a sufficient distance from the listed TECs, the proposal is not at variance to this Principle.

**Methodology** GIS Database: Threatened Ecological Communities - CALM 12/04/05.

**(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**

There is 10.3% pre-European vegetation remaining in the Avon Wheatbelt Bioregion, 19.4% in the Shire of Morawa, 15.2% in Beard vegetation association 352 and 37% in Beard vegetation association 631.

Although the Avon Wheatbelt, Shire of Morawa and Beard vegetation association 352 all have less than 30% of their pre-European extent remaining, the vegetation that will be removed is succulent steppe as described in Beard vegetation association 631; with 37% remaining. Also due to the size of the area under application and its proximity to a roadway, it is unlikely that it would be considered a significant remnant of native vegetation.

**Methodology** Site Visit, DoE Officer 2005  
Shepherd et al, 2001  
Department of Natural Resources and Environment, 2002  
GIS Databases:  
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00  
- Pre-European Vegetation - DA 01/01  
- Local Government Authorities - DLI 08/07/04.

**(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 area under application falls within the proximity of non-perennial lakes and areas subject to inundation. These features represent a wetland. More specifically the area is a part of an internal drainage system characterised by a chain of salt lakes that stretch between Mongers and Yarra Yarra Lakes (DoE 2006). Currently there is no information available that has assessed the environmental values of this area.

This wetland has already experienced numerous disturbances including the existing road that forms the basis of this proposal. Due to the size of the area under application and the condition imposed by CALM that addresses changes to local hydrology, it is not likely that the proposal will reduce the ecological values or functions of the area.

**Methodology** Site visit, DOE Officer 2005  
Hydrologist DoE, pers. comm. 2006  
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**

The area under application is flat landform within a salt lake system. The soils commonly associated with these systems are gypseous and saline loams. As such the site is already subject to inundation and is naturally saline. It is not anticipated that the removal of 0.4ha of vegetation would result in increased risks of erosion, salinity or waterlogging. DAWA (2005) have also advised that the proposal is unlikely to be at variance to this Principle.

**Methodology** DAWA 2005 (DoE TRIM ref HD25865)  
Site visit, DoE Officer 2005  
GIS Databases:  
- Geoscientific, soils statewide - DA 11/99  
- 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**

Koolanooka Dam Nature Reserve is the only conservation area that occurs locally; within 10km. However as the reserve is >6km from the area under application, and due to the small amount to be cleared under the proposal, it is not likely that this will impact on the environmental values of the reserve. Therefore the proposal is not likely to be at variance to this Principle.

**Methodology** GIS Databases:  
- CALM Regional Parks - CALM 12/04/02  
- CALM Managed Lands & Waters - CALM 01/07/05  
- Proposed National Parks FMP-CALM 19/03/03  
- Register of National Estate - EA 28/01/03

**(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 in the Yarramonger catchment and does not include any Public Drinking Water Source Areas (PDWSA) or PDWSA Protection Zones. Advice from DoE (2005) suggests that due to the location and the amount of clearing proposed, the possibility that groundwater will be affected is low. In addition it is a condition of CALM's permit to take that the proposal does not affect the surface hydrology of the area such that the remaining populations of *Halosarcia bulbosa* are adversely affected. Therefore the proposal is not likely to be at variance to this Principle.

**Methodology** Hydrologist DoE, pers. comm. (2005)  
CALM 2006 (DoE TRIM ref GD737)  
GIS Databases:  
- PDWSA Protection Zones - DOE 07/01/04  
- Public Drinking Water Sources (PDWSAs) - DOE 09/08/05  
- Hydrographic Catchments - Catchments - DOE 23/03/05

**(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 at variance to this Principle**

The vegetation under application lies in an extensively cleared Bioregion in an area that experiences 400mm of rainfall annually. Although it also falls within the proximity of non-perennial lakes and areas subject to inundation, given the amount of clearing proposed, it is extremely unlikely to increase the occurrence or height of localised flooding.

**Methodology GIS Databases:**

- Rainfall, Mean Annual - BOM 30/09/01
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00

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

**Comments**

The Shire of Morawa have not indicated that there are any planning requirements/ approvals that would affect the clearing.

A regional DoE team consultation was undertaken and there is no other RIWI Act Licence, Works Approval or EP Act Licences that will affect the area under application. Proponent commitments in a scoping document (December 2004) state that dust will be managed either by sealing the road or by regular application of water from carts. Site will need a dust management plan (Part V process).

The EPA received the Shire of Morawa TPS 2 Scheme Amendment that included the area under application. The Scheme amendment was not assessed (no appeals) as it was deemed that there were no significant environmental factors identified at the time. The level of assessment was set on the 17 December 1997. More recently the EPA assessed the proposal of Midwest Corporation to transport ore fines from Koolanooka exclusively by road. The proposal was not assessed, but public advice was given (DoE TRIM ref. GD743) and the activities will be managed under Part V of the EP Act. The level of assessment was set on 24 November 2005.

A Native Title claim exists over the area under application. Although the land is crown land, it is held 'in fee simple' thereby extinguishing Native Title (DoE TRIM ref. GD755).

A submission was received raising concerns that the area traverses a watercourse and may impact fauna and Declared Rare Flora. These issues have been addressed in Principle 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; Principle c: Native vegetation should not be cleared if it includes, or is necessary for the continued existence of rare flora; and Principle f: Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse of wetland.

**Methodology**

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Road construction or maintenance	Mechanical Removal	0.4	Grant	The assessable criteria have been addressed and no objections were raised. The assessing officer therefore recommends that the permit should be granted.

**5. References**

ATA Environmental (2004) Koolanooka Iron Ore Project - Rail Easement Vegetation Assessment and Targeted Flora Survey. CALM, 2006 (DoE TRIM ref GD737)

DAWA 2005 (DoE TRIM ref HD25865)

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.

Hydrologist DoE, pers. comm. (2005)

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.

## 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)