



## 1. Application details

### 1.1. Permit application details

Permit application No.: 393/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Worsley Alumina Pty Ltd

### 1.3. Property details

Property: LOT 8034 ON PLAN 130811 (Lot No. 8034 PINJARRA-WILLIAMS MARRADONG 6390)

Local Government Area:

Colloquial name: Lot 8034 on Plan 130811

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.15		Mechanical Removal	Miscellaneous

## 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
Hedde Vegetation Complex: Coolakin Complex in low rainfall (Hedde, 1980)	The clearing proposal is for the installation of wash down bay. The clearing will mainly remove approximately 6 Eucalyptus spp., a number of Allocasuarina spp., and Dryandra spp. understorey within a 0.15 hectare area.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Information on vegetation clearing and condition provided by applicant (DoE TRIM Ref: 2005 0/719)
Mattiske Vegetation Complex Dwellingup 4: Open forest to woodland of Eucalyptus marginata subsp. thalassica-Corymbia calophylla on lateritic uplands in semiarid and arid zones. (CALM, 1998)			
Beard Vegetation Association 3: Medium forest Jarrah-marri (Shepherd et al. 2001)			

## 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 area under application contains vegetation in a degraded to good condition with evidence of impact through historical land-uses and is visibly impacted by weed spp. With the area under application forming a very small part of a larger remnant it is considered unlikely that the vegetation under application represents an area of higher biological diversity.

**Methodology** Information obtained from applicant (DoE Ref: 2005 0/719)  
GIS database: Declared Rare and Priority Flora List - CALM 01/07/2005

**(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 0.15 of a hectare under application is considered a relatively small part of a much larger remnant. Thus the vegetation under application is not considered necessary for the maintenance of a significant habitat for indigenous fauna.

**Methodology** GIS Database: Brookton-Boddington 1m Orthomosaic - DLI 04

**(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 26 known populations of Declared Rare and Priority Flora in the local area, defined as a 10-kilometre radius surrounding this application. Of these populations, 4 are present within the same Dwellingup 4: Mattiske Vegetation Complex as that under application. These include with the closest example being Calytrix simplex, located approximately two kilometres to the east.

In October 2005 a botanist from Mattiske Environmental Consultant conducted a Declared Rare and Priority Flora species search of the two areas covered under this application. The result of the survey concluded that no rare species were identified in the area under this clearing permit application (DoE TRIM Ref: 2005/1399)

**Methodology** GIS database: Declared Rare and Priority Flora List - CALM 01/07/2005  
Information obtained from applicant (DoE Ref: 2005 0/719)

**(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 records of Threatened Ecological Communities (TEC) in the vicinity of the proposed clearing (the nearest community is approximately further than 20 kilometres away). Based on the limited area of vegetation under application, percentage of vegetation remaining in the complex and the distance to the nearest TEC it is unlikely that the proposed clearing will be at variance with this principle.

**Methodology** GIS Database: Threatened Ecological Communities - CALM 12/4/2005

**(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 and Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-European settlement (Department of Natural Resources and Environment 2002; EPA 2000). The vegetation at the site is a component of Beard Vegetation association 3 (Hopkins et al. 2001) and Mattiske (1998) Vegetation Complexes Dwellingup 4 (D4), which are both considered in the category of least concern and are well above the recommended 30% limit.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation status***	% in reserves/CALM-managed land
IBRA Bioregion - Jarrah Forest		4,544,335	2,665,480	58.7%	Least concern
Shire of Boddington	195,281	138,327	70.8%*	Least concern	
Beard vegetation association - 3	3,046,385	2,197,837	72.1%*	Least concern	10.1%
Mattiske vegetation complex - D4	1,324,003	1211559	91.5%**	Least concern	
Heddle vegetation complex					
Coolikin complex	No information available				

\* (Shepherd et al. 2001)

\*\* (Mattiske Consulting 1998)

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

**Methodology** Department of Natural Resources and Environment 2002  
EPA 2000  
Hopkins et al. 2001  
Mattiske 1998  
Shepherd et al. 2001

**(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 is ~400metres from the nearest minor watercourse and greater than 4 km from the Hotham River. There are no wetlands categorised within 4km of the area under application. Due to the distance from any wetland or watercourse it is considered that the removal of vegetation from the site would not be considered in association with a wetland and watercourse.

**Methodology** GIS Databases:  
Geomorphic Wetlands (Management Categories), Swan Coastal Plain - DOE 15/9/04  
Hydrography, linear - DOE 1/2/04  
Clearing Regulations - Environmentally Sensitive Areas - DOE 30/5/05

**(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**

Based on the limited amount of vegetation under application, approval of this proposal is considered unlikely to cause an appreciable impact on land degradation on-site or off-site. The proposed use is for a washdown bay and water from this process and Worsley general dust management on-site would limit the generation of airborne dust from the area being cleared.

**Methodology** Information obtained from applicant (DoE Ref: 2005 0/719)

**(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**

The nearest conservation reserve is Mooradong Nature Reserve which is greater than 9km from the site. Given the distance to the nearest conservation area and the limited area that is proposed for clearing the proposal is unlikely to effect nearby conservation areas.

**Methodology** GIS Database: CALM Managed Lands and Waters - CALM 1/07/05

**(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 rainfall in the area is less than 800mm and not within a prescribed groundwater area and not within a public drinking water source area (PDWSA). When considering the area under application is in a moderate rainfall area, does not form part of the PDWSA and the size is a relatively small scale of the proposed clearing is unlikely to significantly affect ground or surface waters.

**Methodology** GIS Database:  
Isohyets - BOM 09/98  
PDWSA Protection Zones - DOE 7/1/04

**(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**

The clearing is ~400metres from the nearest minor watercourse and greater than 4 km from the Hotham River. Due to the relatively small scale of clearing and distance from any watercourse it is considered that the removal of vegetation from the site would have no impact on peak flood height or duration.

**Methodology** GIS Database: Hydrography, linear - DOE 1/2/04

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

**Comments**

No groundwater licence required as the area under application is not within a proclaimed groundwater area.

No Part V approvals required for a wash down bay.

Worsley Alumina Pty Ltd is the holder of a valid mining lease. Under the granting of this lease native title has been extinguished, therefore the clearing should not fall under the future acts process of the Native Title Act 1993.

**Methodology**

#### 4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Miscellaneous	Mechanical Removal	0.15	<b>Grant</b>	The assessable criteria have been addressed and the proposal is not likely to be at variance with any of the principles  The assessing officer therefore recommends that the permit 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.
- 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.
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- 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.
- Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.
- 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)