



## 1. Application details

### 1.1. Permit application details

Permit application No.: 548/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Alcoa World Alumina Australia

### 1.3. Property details

Property: LOT 205 ON PLAN 34250 (Lot No. 205 SOMERS WAGERUP 6215)  
Local Government Area: Shire Of Waroona  
Colloquial name: Kubank Road Lot 205 on Plan 34250 (vol 2540 fol 866)

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
	259	Mechanical Removal	Dam 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
Hedde Vegetation Complex Mixture of open forest to tall open forest of E. calophylla - E. wandoo - E. marginata and woodland of E. wandoo (with rare occurrences of E. lane-polei). Minor components include E. rudis - M. raphiophylla. (Hedde et al. 1980)	Vegetation located within the footprint of the proposed Residue Drying Area and water storage dam is in a completely degraded state, primarily consisting of cleared pastures with mainly isolated Eucalyptus spp. or stands of Eucalyptus spp.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Site photos DoE TRIM Ref: IN20917 and GIS database: NLWRA, Current Extent of Native Vegetation - DA 30/01/01 that does not map the area under application as a remnant
Beard vegetation association 999 - Medium woodland; marri (Shepherd et al. 2002)			

## 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**  
Vegetation within Lot 205 has been significantly modified through historic clearing practises activities such as grazing. The native vegetation under application is located within an almost completely cleared paddock, and consists of approximately 259 trees within a 109 hectare area. It is not considered likely that the vegetation proposed to be removed is representative of higher biological diversity in the local area.

**Methodology** GIS databases:  
Declared Rare and Priority Flora List - CALM 01/07/2005  
Current Extent of Native Vegetation - DA 30/01/01

### (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**  
Photographs of the area under application (DoE TRIM Ref: IN20917) confirm that native understorey vegetation is absent and therefore habitat for smaller native fauna such as Isoodon obesulus fusciventer is limited. The

large trees within the area under application may provide some habitat for fauna species, however due to the level of disturbance, the habitat value of the site is would not be considered significant.

**Methodology** GIS Database: Current Extent of Native Vegetation - DA 30/01/01

**(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**

A review of the declared rare flora (DRF) and priority flora database has identified that there was no significant flora recorded on-site. The database did record the following flora within a 5000m radius:

- 1 Priority 2 flora record approximately 5000m WNW of the area under application (*Boronia capitata* sub. *gracilis*);
- 1 DRF site approximately 4600m south east of the area under application (*Drakaea elastica*);
- 1 DRF site approximately 3500m NNW of the area under application (*Tetraria australiensis*); and
- 1 DRF site approximately 3000m south east of the area under application (*Synaphea stenoloba*).

The site photo's DoE TRIM Ref: IN20917 confirmed that it would be unlikely that any DRF and Priority flora recorded in the surrounding area would be present on the lot under this application. This is due to the DRF and Priority flora identified as understorey species and the general absence of native understorey observed in the area under application.

**Methodology** GIS databases:  
Declared Rare and Priority Flora List - CALM 01/07/2005  
Current Extent of Native Vegetation - DA 30/01/01

**(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**

While the vegetation remaining may have been originally been part of Floristic Community Type 3a, b or c, which are Threatened Ecological Communities, the completely degraded condition (site photo's DoE TRIM Ref: IN20917) of this vegetation means that it does not now represent these community types. It is not consider that the removal of vegetation from the area under application would not have any impact on any threatened ecological communities.

**Methodology** GIS Database: Current Extent of Native Vegetation - DA 30/01/01

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

The vegetation proposed to be cleared is defined as Beard vegetation association 999 (Hopkins et al. 2001) and Heddle vegetation 'Guildford Complex' (Heddle et al. 1980). Of these two vegetation types, both are under the recommended 30% threshold.

The State Government is committed to the National Objective Targets for Biodiversity Conservation, which includes targets that prevent the clearing of ecological communities with an extent below 30% of that present pre-1750 (Department of Natural Resources and Environment 2002; EPA 2000). Beyond this value, species extinction is believed to occur at an exponential rate and any further clearing may have irreversible consequences for the conservation of biodiversity.

While these representation figures are below the recommended 30% target, the vegetation on site is in a completely degraded condition, it is unlikely to be representative of these communities.

	Pre-European area (ha)	Current extent (ha)	Remaining %	Conservation status***	% in eserves/CALM-managed land
IBRA Bioregion	1,529,235	657,450	43%*	Depleted	
Shire of Waroona	83,508	50,761	60.8%*	Least Concern	
Local Area (~10km radius)	44,800	21,500	47%	Depleted	
Beard vegetation association - 999	275,380	32,451	11.8%*	Vulnerable	8.1%
Heddle vegetation complex - Guildford Complex	92,497	4,662	5.0%**	Endangered	0.2%

\* (Shepherd *et al.* 2001)

\*\* (Heddle *et al.* 1980)

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

**Methodology** Department of Natural Resources and Environment 2002  
EPA 2000  
Heddle et al. 1980  
Hopkins et al. 2001  
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 located approximately 1000 metres from Yalup Brook and is not associated with any wetlands of a high conservation value. The area under application is however part of a large palusplain multiple use wetland. Given the low density of vegetation over a large area it is considered that there would be a minimal alteration to the water table and it is therefore unlikely that the clearing will impact on the hydrological function of the wetland. Some of the clearing is located next to the Samson Agricultural Drain, but this drain is not considered a watercourse under the definitions in the RIWI Act 1914. Prior to the residue disposal area construction commencing the drain will be diverted around the edge of the proposed area under application.

**Methodology** GIS Databases:  
Hydrography, linear - DOE 1/2/04  
Geomorphic Wetlands (Management Categories), Swan Coastal Plain - DOE 15/9/04

**(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 rated a high salinity risk area but given the low density of vegetation over a large area it is considered that there will be no substantial alteration to the water table and therefore minimal effect on salinity levels through the removal of 259 trees. The current land-use is pasture for cattle grazing with the removal of the trees unlikely to expose significant areas to the potential for wind erosion. The end use after the clearing will be for a residue disposal area which is required to have significant dust management under the conditions of Works Approval and Licence issued under Part V of the Environmental Protection Act 1986.

**Methodology** GIS Database: Salinity Risk LM 25m - DOLA 00

**(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**

No conservation areas have been identified near Lot 205, with the nearest being the CALM managed Buller Road Nature reserve, approximately 4 kilometres to the west. Due to the degraded nature of the vegetation under assessment, it is not considered that it would contribute significantly to ecological linkages to nearby conservation areas.

**Methodology** GIS Databases:  
CALM Managed Lands and Waters - CALM 1/07/05  
GIS Database: Current Extent of Native Vegetation - DA 30/01/01

**(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 within the prescribed Waroona groundwater area, although is not within a public drinking water source area (PDWSA). Given the current low density of vegetation over a large area under application it is considered unlikely that there will be any appreciable alteration or deterioration of the water table as a result of the clearing.

**Methodology** GIS Databases:  
RIWI Act, Groundwater Areas - WRC 13/06/00  
Public Drinking Water Source Areas (PDWSA's) - DOE 09/08/05

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

The area under application is located approximately 1000 metres from the Yalup Brook. Some of the clearing is located next to the Samson Agricultural Drain but it is proposed as part of this project that the drain will be diverted around the edge of the area under application. Due to the low density of vegetation over the large area under application and the distance to the nearest watercourse it is considered that the removal of vegetation from the site would have no impact on peak flood height or duration.

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

### Comments

The construction of residue storage areas require a works approval under Part V of the Environmental Protection Act 1986.

### Methodology

## 4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Dam construction oRemoval maintenance	Mechanical	259	Grant	<p>The assessable criteria have been addressed, and the proposal may be a variance to Principles (e).</p> <p>While the vegetation complex under application is classified as having a representation below the recommended 30% threshold, the proposed area under application is parkland cleared in a completely degraded condition. It is therefore considered unlikely to be representative of these communities. The assessing officer therefore recommends that the permit be granted.</p>

## 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.

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)