



1. Application details

1.1. Permit application details

Permit application No.: 1178/2
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Alcoa World Alumina Australia

1.3. Property details

Property: LOT 203 ON PLAN 14252 (Lot No. 203 South Western Highway, WAGERUP 6215)
Local Government Area: Shire of Waroona
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.87		Mechanical Removal	Building or Structure

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 3 - Medium forest; jarrah-marri	The proposal includes clearing of 0.87ha of native vegetation for the purpose of building an alumina hydrate storage shed.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The description of the vegetation under application was obtained during a site visit on Wednesday 26th of April 2006.
Heddie Vegetation Complex - Forrestfield complex - Vegetation ranges from open forest of <i>Eucalyptus calophylla</i> - <i>E.wandoo</i> - <i>E.marginata</i> to open forest of <i>E.marginata</i> - <i>E.calophylla</i> - <i>C.fraseriana</i> - <i>Banksia</i> species. Fringing woodland of <i>E.rudis</i> in the gullies that dissect this landform.	The vegetation under application comprises woodland of approximately 30 mature <i>Eucalyptus marginata</i> , with <i>E.calophylla</i> and <i>Xylomelum occidentale</i> interspersed. The understorey is sparse and comprises <i>Kingia australis</i> , an occasional <i>Xanthorrhoea preissii</i> , weeds and grasses.		
Heddie et al. (1980) Shepherd et al. (2001)	Amendment to CPS 1178/1 to include an additional 0.12ha is not considered a substantial amendment, and does not require amendment to the clearing principles previously addressed.		

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

The vegetation under application is in a degraded condition, with little overstorey in most areas, and an understorey consisting primarily of weeds. Given the limited size and vegetation condition of the area under application it is not considered likely to have a high level of biodiversity.

Methodology Site visit 26/4/06

(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

During the site visit three Carnaby's Cockatoos were feeding in *E.marginata* trees adjacent to the area under

application, and under *E.marginata* within the applied area there were significant numbers of discarded nuts that appeared to have been fed on previously. The vegetation under application includes approximately 30 *E.marginata* that have the potential to be utilised by Carnaby's Cockatoo for feeding. There were no suitable nesting hollows observed on site for Carnaby's cockatoo or other faunal species.

CALM (2006) advises that 'whilst the area is utilised to some degree by Carnaby's Cockatoo, there is no evidence to suggest that the vegetation proposed to be cleared would constitute significant habitat if considered in a local context, which would include Dwellingup State Forest and Lane Pool Reserve.'

Given the degraded condition of the vegetation under application, it is considered that similar or better habitat for Carnaby's Cockatoo is likely to be available in nearby reserves. In addition, the lack of understorey within the applied area is likely to limit the potential for significant habitat for other indigenous fauna species.

Methodology Site visit 26/4/06
CALM (2006) (DoE TRIM ref: 2006I/573)

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

Comments

There are no known populations of Declared Rare or Priority Flora (DRF) within the area under application. There are five recorded occurrences of DRF within the local area (5km radius of the application), including *Tetraria australiensis*, which is found within the Forrestfield Complex identified in the applied area.

Although there is the potential for *T.australiensis* to occur within the applied area, the vegetation under application is in a degraded condition and lacks understorey due to historical land uses including grazing. It is therefore not considered likely to include, or be necessary for the continued existence of rare flora.

Methodology Site visit 26/4/06
GIS Databases:
Declared Rare and Priority Flora List - CALM 01/07/05
Hedde Vegetation Complexes - DEP 21/06/95

(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

There are 10 known occurrences of Threatened Ecological Communities (TEC) within the local area, however no TECs have been recorded within the area under application.

While the vegetation under application may have been originally been part of Floristic Community Type 3a (*Eucalyptus calophylla* - *Kingia australis* woodlands on heavy soils) which is a TEC, the completely degraded condition of the vegetation means that it now does not represent this community type. It is therefore not considered likely that the removal of vegetation from the area under application would have an impact on any TEC.

Methodology Site visit 26/4/06
GIS Database: 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

Hedde et al. (1980) defines the vegetation under application as 'Forrestfield Complex', which is classified as vegetation ranging from open forest of *E.calophylla* - *E.wandoo* - *E.marginata* to open forest of *E.marginata* - *E.calophylla* - *C.fraseriana* - *Banksia* species, with fringing woodland of *E.rudis* in the gullies that dissect this landform. This complex has a representation of 17.5% of the present pre-European settlement, which is considered vulnerable (Department of Natural Resources and Environment 2002).

While the representation figures classify Forrestfield Complex as vulnerable, the vegetation on site is in a degraded condition and it is not considered likely to be representative of this community.

Methodology Site visit 26/4/06
Department of Natural Resources and Environment 2002
EPA 2000
Hedde et al. 1980
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

The area under application is located approximately 350m from a multiple use wetland and 750m north from Bancell Brook. A number of Conservation Category Wetlands (CCW) also are located within the local area, however no wetlands have been mapped within the area under application.

Given the distance to the nearest wetland, and that no wetland dependent vegetation was observed during the site visit, the proposal is not considered likely to impact vegetation associated with a wetland or waterbody.

Methodology Site visit 26/4/06
GIS Database:
EPP, Lakes - DEP 1/12/92
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DOE

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

Comments

Soils within the area under application are of Forrestfield F2c phase, which is identified as low slopes and foot slopes with well-drained deep uniform yellowish brown sands that are generally free of laterite or gravel. These soils have a very low risk of land degradation (Agmaps 2005) including waterlogging, wind erosion and water erosion, and have a moderate to low risk of acid sulphate soils.

In addition to this, an alumina hydrate storage shed will be constructed on the applied area and the proposed clearing is not considered likely to cause appreciable land degradation.

Methodology Agmaps (2005)
GIS Databases:
Acid Sulfate Soil Risk Map, SCP - DOE 04/11/04
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

The Heddle vegetation complex 'Forrestfield Complex' identified within the applied area currently has 0.3% (Heddle et al 1980) in secure tenure, with JANIS (1997) recommending that 15% of the pre-1750 distribution of each vegetation ecosystem should be protected in a comprehensive, adequate and representative reserve system. However, due to the degraded condition of the vegetation under application it is not considered to be representative of this complex and therefore has limited conservation value.

The only conservation reserve within the local area is located 3.6km to the south of the applied area. Due to the degraded condition of the vegetation under application, it is not considered likely that it would contribute significantly to ecological linkages to nearby conservation areas. The proposed clearing is therefore not considered likely to be at variance to this Principle.

Methodology Site visit 26/4/06
CALM (2006) (DoE TRIM ref: 2006I/573)
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

The area under application is not located within a Public Drinking Water Source Area (PDWSA) and the nearest watercourse is Bancell Brook, which is located 750m to the south. Given the limited amount of vegetation under application it is considered unlikely that there will be substantial alteration or deterioration of the water table as a result of the clearing.

Methodology Site visit 26/4/06
GIS Databases:
Hydrography, linear (hierarchy) - DOE 13/4/05
Public Drinking Water Source Areas (PDWSAs) - DOE 07/02/06

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments

No areas of flooding were identified within the area under application, and there is only a slight relief in

topography toward the west. Given this, and the well-drained nature of the soils identified on site, the clearing as proposed is not considered likely to cause or exacerbate the incidence of flooding.

Methodology Agmaps (2005)
 Site visit 26/4/06
 GIS Databases:
 Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The lot under application is part of a Native Title Claim however, since it is privately owned Native Title is extinguished under the Native Title Act. Therefore the clearing as proposed should not fall under the future acts process of the Native Title Act 1993.

Building approval has not yet been issued, however the Shire of Waroona has advised the proponent that it should be obtained within two weeks from 3 May 2006. The construction of the alumina hydrate storage shed is considered to be urgent as a calciner is being taken offline for maintenance. This results in alumina hydrate at levels above that which can be processed on site and without construction of the shed excess alumina hydrate will have to be trucked to the Pinjarra refinery. Trucking of the excess alumina hydrate has associated environmental risk (trucking of caustic material), will increase traffic through the town of Pinjarra and would involve substantial costs for the proponent.

Methodology GIS Database: Native Title Claims - DLI 7/11/05

4. Assessor's recommendations

Purpose	Method Applied	Decision	Comment / recommendation
Building or Structure	Mechanical Removal 0.87 area (ha)/ trees	Grant	Assessable criteria have been addressed and no objections were raised. The assessing officer therefore recommends that the permit should be granted. Permit amendment from CPS 1178/1 is not considered to be a substantial amendment, and has not required an amendment to the Clearing Principles previously addressed.

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, B.J. (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)

