



1. Application details

1.1. Permit application details

Permit application No.: 2928/1
 Permit type: Area Permit

1.2. Proponent details

Proponent's name: Midland Brick Company Pty Ltd

1.3. Property details

Property: LOT 6 ON PLAN 49665 (MUCHEA 6501)
 Local Government Area: Shire Of Chittering
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2		Mechanical Removal	Extractive Industry

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 1020: Mosaic: Medium forest; jarrah-marri / Medium woodland; marri-wandoo (Shepherd 2007).	The proposal is to clear 2 ha of native vegetation within a 10 ha area for the purpose of extractive industries.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation and clearing description obtained from vegetation survey conducted by Landform Research (2005) and from photographs provided by Land Insights (2008).
Hedde Vegetation Complexes :Reagan Complex : Vegetation ranges from low open woodland of Banksia species E. todiana to closed heath depending on the depth of soil (Hedde et al 1980).	The majority of the vegetation under application comprises of scattered Eucalyptus Wandoo, E accedens and E. calophylla over grassy pasture weeds.		
Mogumber Complex - South: Open woodland of Eucalyptus calophylla, with some admixture of E. marginata and a second storey of E. todiana - Banksia attenuata - B. menziesii - B. ilicifolia (Hedde et al 1980).	The vegetation under application showed obvious signs of grazing.		
Mattiske Vegetation Complexes: Mogumber Mb: Open woodland of Corymbia calophylla with some mixture of Eucalyptus marginata subsp. thalassica and a second storey of Eucalyptus todiana-Banksia attenuata-Banksia menziesii-Banksia ilicifolia on sandy-gravels on the uplands in arid and perarid zones (Mattiske 1998).			
Reagan Re: Mixture of low open woodland of Banksia spp.-Eucalyptus todiana to closed heath of Myrtaceae-Proteaceae spp. depending on depth of soils on escarpment in arid areas (Mattiske 1998).			

3. Assessment of application against clearing principles

Comments

The vegetation within the area under application comprises 2 ha of scattered Eucalyptus wandoo, E accedens and E. calophylla over grassy pasture weeds within a 10 ha area and is in a completely degraded to degraded condition. Given the lack of native understorey and the degraded condition of the vegetation under application, the vegetation to be cleared is not considered likely to comprise significant habitat for fauna or a high level of biological diversity. In addition, it is not considered likely for the area under application to be significant as a remnant of native vegetation in the local area.

There are four records of rare flora within the local area (~5km radius) including *Thelymitra stellata*, *Acacia anomala*, *Grevillea althoferorum* and *Grevillea curviloba* subsp. *incurva*. A vegetation survey undertaken during August and November 2004 (Landscape Research 2005) did not identify any of the rare flora species listed above and therefore the area under application is not likely to include habitat for rare flora.

There are two known occurrences of Threatened Ecological Communities (TEC) in the local area (~5 km radius), being Shrublands and woodlands on Muchea Limestone; and Herb rich saline shrublands in clay pans (Floristic Community Type 7), occurring 4.3 km west and 4.9 km south of the area under application respectively. Given that the vegetation under application occurs on sandy acidic yellow mottled soils containing ironstone gravel (Northcote et al. 1960-68) and does not occur on clay pans or limestone outcrops it is not considered likely that the area would contain or be necessary for the maintenance of a threatened ecological community.

The closest conservation reserve to the area under application are Bush Forever sites 81 and 79 occurring 3.4 km south and 3.4 km northeast from the area under application, respectively. In addition, there is an unnamed Nature Reserve located 4 km west of the area under application. Given the distance to these conservation areas it is not considered likely for the proposed clearing to impact on the environmental values of the conservation areas.

There are numerous wetlands within the local area (5 km radius) with the closest being a Multiple Use Wetland occurring ~260 m south of the area under application. A Resource Enhancement Wetland (REW) also occurs 1.5 km northwest of the area under application. The nearest watercourse is the Ellen Brook, a minor river, which occurs ~2.7 km west of the area under application. Given the distance to the nearest wetland and watercourse from the area under application it is not considered likely to be growing in association with a wetland or watercourse or cause deterioration to surface or underground water quality. In addition, the limited clearing is not considered likely to have an impact on peak flood height or duration.

The chief soils within the area under application are sandy acidic yellow mottled soils, containing much ironstone gravel, lateritic sandy gravels and associated with leached sands (Northcote et al. 1960-68). The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be water erosion (Department of Agriculture 2005). The proposed clearing may be considered likely to cause appreciable land degradation through water erosion.

A condition that requires rehabilitation post mining has been imposed on the permit to reduce the impacts of water erosion.

Methodology

Reference

- Department of Agriculture (2005)
- Landscape Research (2005)
- Northcote et al. (1960-68)

GIS Databases

- Geomorphic Wetlands (Classification), Swan Coastal Plain
- Hydrography, linear (hierarchy)
- SAC Bio Dataset 16/01/2009
- Soils, Statewide

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

Comments

The area under application is zoned as Rural - Landscape Protection under the Shire of Chittering Town Planning Schemes.

The area under application is within a Key Extraction Area as outlined in the Statement Planning Policy 2.4 Basic Raw Materials

Planning approval and Extractive industry licence have been approved by the Shire of Chittering and was received on the 5 August 2007 and is current until June 2012 (Shire of Chittering, 2007). A condition of the planning approval is for no evacuation to occur within 20 m of a boundary of any land not owned by the proponent.

Submission (2009) stated that the removal of the Wandoo woodland along the hill ridge may increase salinity of soils further downslope and contribute to a higher water table. The groundwater in this area is already acidic and flows directly into Ellen Brook. If a permit is granted it is recommended that an offset proposal particularly for the established *Eucalyptus wandoo* woodland should be negotiated with Midland Brick as well as rehabilitation and revegetation conditions set on the permit.

Methodology

References

- Midland Brick (2008)

-Submission (2009)
GIS Databases
-Town Planning Scheme Zones

4. Assessor's comments

Comment

The assessable criteria have been addressed and the clearing as proposed may be at variance to Principle (g).

5. References

Department of Agriculture (2005) AgMaps Land Manager CD-rom for the Shires of Serpentine-Jarrahdale, Kwinana, Rockingham, Mandurah, Murray, Boddington, Waroona and Harvey. Department of Agriculture, Western Australia. ISSN: 1448-235X.

Heddle, 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.

Land Insights (2008) Photographs of area under application - Lot 6 Wandena Road Muchea. TRIM Ref: DOC72266

Landscape Research (2005) Vegetation Study, Locations M1327 and M1499 Wandena Road, Muchea.

Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.

Midland Brick (2008) Clearing Permit Application and Relevant Approvals. TRIM Ref. DOC72266

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

Shepherd, D.P. (2007). 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.

Submission (2009) Direct Interest Submission from the Ellen Brockman Integrated Catchment Group. TRIM Ref DOC75955

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)

