Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2761/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Midland Brick COmpany Pty Ltd

1.3. Property details

Property: LOT 13 ON DIAGRAM 76980 (Lot No. 13 SMITH BULLSBROOK 6084)

Local Government Area: City Of Swan

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
10		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: 4 - Medium woodland; marri and wandoo. (SAC Bio Datasets 21/10/2008; Shepherd, 2006) Heddle Vegetation Complexes: Darling Scarp Complex - Vegetation ranges from low open woodland to lichens according to depth of soils. Woodland components chiefly E. wandoo with E. laeliae in the north, E. haematoxylon in the south, and E. calophylla throughout the region. (Heddle et al, 1980) Mattiske Vegetation Complex: Darling Scarp (DS) - Mosaic of open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla, with some admixtures with Eucalyptus laeliae in the north (subhumid zone), with occasional Eucalyptus marginata subsp. elegantella (mainly in subhumid zone) and Corymbia haematoxylon in the south (humid zone) on deeper soils adjacent to outcrops, woodland of Eucalyptus wandoo	The area under application (10 ha) is located within Lot 13, which is a 67 ha property (zoned rural). The proposed clearing is for extractive industry. The vegetation under application is described as Marri - wandoo woodland (DEC, 2008). The vegetation includes Eucalyptus calophylla, Eucalyptus wandoo, Xanthorrhoea preissii, Leptospermum sp, Hibbertia sp and native grasses and herbs (Neurachne alopecuroides Austrostipa sp, Haemodorum sp and Desmocladus flexuosa). The area showed some disturbance from weeds including lupins, wild oats and Briza maxima (DEC, 2008). The soils were red earthy soils associated with the darling scarp with some ironstone gravel and rock outcrops (DEC, 2008).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition of the native vegetation under application was sourced from the site inspection on 22 October 2008 (DEC, 2008).

(subhumid and semiarid zones), low woodland of Allocasuarina huegeliana on shallow soils over granite outcrops, closed heath of Myrtaceae-Proteaceae species and lithic complex on or near granite outcrops in all climate zones.

(Mattiske and Havel, 1998)

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

A site inspection (DEC, 2008) of the area under application (10ha) identified the condition of the vegetation to be good with the area being disturbed from weeds including wild oats, Briza maxima and lupins. The vegetation under application has a minimal over-storey and lacks a dense understorey, and is therefore not likely to provide habitat for Carnaby's Black-Cockatoo or for ground dwelling fauna such as the Quenda.

Given the high level of disturbance from weed invasion and the limited habitat value, it is not considered likely that the area under application comprises a high level of biological diversity.

Methodology

Reference:
- DEC (2008)

(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

Eight fauna species of conservation significance have been recorded within the local area (5km radius). The nearest recorded fauna species is located approximately 3.3km north-west of the area under application.

A site inspection (DEC, 2008) of the area under application identified the condition of the vegetation to be good with the area being disturbed from weeds including wild oats, Briza maxima and lupins. The vegetation under application has a minimal over-storey and middle storey, and lacks a dense understorey, and is therefore not likely to provide habitat for Carnaby's Black-Cockatoo or for ground dwelling fauna such as the Quenda. Furthermore, no tree hollows were observed within the area under application; however, there were a few trees of hollow bearing age (DEC, 2008).

Given that the area under application is mostly devoid of native vegetation in the middle and lacks a dense understorey and there were no tree hollows observed, the vegetation under application is not considered to be significant for native fauna; therefore the clearing as proposed is considered not likely to be at variance to this Principle.

Methodology

Reference:
- DEC (2008)

GIS Database:
- SAC Bio Datasets 29/10/2008

(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 19 known records of three species of rare flora in the local area (5km radius), being:
- Eleocharis keigheryi;
- Acacia anomala; and
- Stylidium longitubum

The nearest known record is Acacia anomala located approximately 3.1 km north-east of the area under application. The three species of rare flora occur on different soils and within different vegetation complexes as the area under application.

Given the different soil and vegetation complex mapping, and the distance to the closest population of rare flora, the area under application is not considered likely to include or be necessary for the maintenance of rare flora.

Methodology

GIS Databases:
- Heddle Vegetation Complexes

- Mattiske Vegetation
- SAC Bio Datasets 29/10/2008
- Soils, Statewide

(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 known occurrences of four Threatened Ecological Communities (TEC) within the local area (5km radius), being:
- Herb rich saline shrublands in clay pans;
- Eastern Banksia attenuata and/or E. marginata woodlands;
- Forests and Woodlands of deep seasonal wetlands;
- Eucalyptus calophylla - Xanthorrhoea preisii woodlands and shrublands; and

The area under application occurs outside of the buffers for these four TEC. The nearest recorded TEC is located approximately 2.7 km north-west of the area under application.

When floristic composition, soil and landform types observed during site inspection (DEC, 2008) are compared with those in Gibson et al (1994), one of the above TEC, Floristic Community Type 3c: Eucalyptus calophylla - Xanthorrhoea preisii woodlands and shrublands, has similar species compositions, but generally occurs on the heavier clays of the Pinjarra Plain/Guildford Clays and is not likely to occur on the Darling Scarp, where the area under application is located.

In addition, given the good condition of the vegetation with disturbance from weed invasion and limited species diversity, the area under application is not considered to support an occurrence of a TEC and occurs outside of the buffer of a TEC; therefore the proposed clearing is not considered likely to be at variance to this Principle.

Methodology

References:
- Gibson et al (1994)
- DEC (2008)

GIS Database:
- SAC Bio Datasets 29/10/2008
- Soils, Statewide
- Surface Geology

(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 vegetation within the areas under application is identified as a component of Beard vegetation type 4, Heddle Darling Scarp Complex and Mattiske Darling Scarp Complex, of which there is 24.1%, 36.9% and 43.3% of Pre-European extent remaining respectively (Shepherd, 2007; EPA, 2006; Mattiske and Havel, 1998).

The vegetation proposed to be cleared is in a degraded condition and is does not function as an ecological linkage or stepping stone to larger intact remnants in the local area (10km). The vegetation under application is not considered to be a significant remnant.

Methodology

References:
- Commonwealth of Australia (2001)
- EPA (2006)
- Mattiske and Havel (1998)
- Shepherd (2007)

GIS Databases:
- Heddle Vegetation Complexes
- Pre-European Vegetation
- Interim Biogeographic Regionalisation of Australia
- NLWRA, Current Extent of Native Vegetation
- SAC Bio Datasets 21/10/2008

(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

There are no wetlands or watercourses mapped within the area under application with the closest water bodies being a Multiple Use Wetland and Ellen Brook (and some minor tributaries associated with Ellen Brook) located approximately 715 m west and 2.8 km south-west of the applied area, respectively. Further, a site inspection (DEC, 2008) of the area under application did not identify any wetland dependant vegetation.

Given the distance to the nearest waterbodies from the area under application and the lack of wetland dependant vegetation, the clearing as proposed is considered not likely to be at variance to this Principle.

Methodology

Reference:
- DEC (2008)

GIS Databases:
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Hydrography, linear

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

Comments

Proposal may be at variance to this Principle

The landscape of the area under application and surrounds can be described as deeply incised, steep scarp and valley side slopes of the Darling scarp and its more deeply incised tributary valleys (Northcote et al, 1960-68). The chief soils are of the steep scarp and valley side slopes, on which massive rock outcrops are a feature, seem to be acid red earths on the colluvial slope deposits and soils containing ironstone gravel on spurs and ridge tops (Northcote et al, 1960-68). These soils are not considered to be at risk of wind erosion and may be at risk to water erosion.

Contour mapping identifies a moderately inclined to steep gradient (Wells, 1988) with the area under application located upper slope in the landscape on a ridge. The clearing as proposed (10 ha) may result in an increase in surface water runoff causing erosion gullies.

Given the gravel and clays in the surface horizons and the associated water erosion risk, the clearing as proposed is considered to may be cause appreciable land degradation; however, this will be managed under the Extractive Industry Licence.

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

Methodology

References:
- Northcote et al (1960)
- Wells (1988)

GIS Databases:
- 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

There are four conservation reserves within the local area (5km radius), being Walyunga National Park (also identified as a System 6 Conservation Reserve) located 700 m south; and Bush Forever sites 294 (also identified as a System 6 Conservation Reserve), 296 and 89 located 2.3 km north-west, 2.7 km south-west and 2.7 km north north-west of the area under application, respectively. In addition, aerial mapping of the local area confirms limited connectivity from the area under application to the conservation areas; and, the overall condition of the vegetation under application was considered to be degraded (DEC, 2008).

Given the distance of the area under application to the reserves, the degraded condition of the native vegetation and the limited connectivity it is not likely that the clearing of the vegetation under application will impact on the environmental values of the conservation areas.

Methodology

Reference:
- DEC (2008)

GIS databases:
- Bushforever
- DEC Managed Lands and Waters
- System 6 Conservation Reserves
- Swan Coastal Plain North 20cm Orthomosaic - DLI06

(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

There are no wetlands or watercourses mapped within the area under application with the closest water bodies being a Multiple Use Wetland and Ellen Brook (and some minor tributaries associated with Ellen Brook) located approximately 715 m west and 2.8 km south-west of the applied area, respectively.

The area under application is not located in a Public Drinking Water Source Area and there is a low salinity risk.

Given the distance to the nearest watercourses and the low salinity risk, the clearing as proposed is considered not likely to cause deterioration in the quality of surface water.

Methodology GIS Databases:
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSAs)
- Salinity Risk LM 25m

(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

There are no wetlands or watercourses mapped within the area under application with the closest water bodies being a Multiple Use Wetland and Ellen Brook (and some minor tributaries associated with Ellen Brook) located approximately 715 m west and 2.8 km south-west of the applied area, respectively; and as such it is considered that the clearing as proposed is not likely to cause or increase the incidence or intensity of localised flooding. Therefore, this clearing proposal is not likely to be at variance to this Principle.

Methodology GIS Databases:
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Hydrography, linear

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

Comments

On the 15 May 2008 the Western Australian Planning Commission granted an Approval to Commence Development with 11 conditions; the approval allowed for extractive industry (clay and shale extraction) within Lot 13 (Midland Brick, 2008).

The City of Swan issued an Excavation Licence (Licence No. DA-633/2007) to Midland Brick (2008) for Lot 13.

There is no other RIWI Act Licence, Works Approval or EP Act Licence that affects the area under application.

The State Planning Policy 2.4 - Basic Raw Materials identifies Lot 13, which includes the areas under application, as being within a priority area for extraction of basic raw material such as clay.

There is one Aboriginal Site of Significance listed within the areas under application, the applicant will be advised of their obligations under the Aboriginal Heritage Act 1972.

Lot 13 on Diagram 76980 is freehold land owned by Midland Brick Company Pty Ltd and is zoned Rural under the Metropolitan Regional Scheme.

Methodology Reference:
- Midland Brick (2008)

GIS databases:
- Aboriginal Sites of Significance
- Cadastre
- Metropolitan Regional Scheme
- RIWI Act, Groundwater Areas

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

Commonwealth of Australia (2001) National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS, Canberra.

DEC (2008) Site Inspection Report for Clearing Permit Application CPS 2758/1, Lot 13 Smith Road, Bullsbrook. Site inspection undertaken 22/10/2008. Department of Environment and Conservation (TRIM Ref DOC66510).

EPA (2006) Guidance for the Assessment of Environmental Factors - Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region. Guidance Statement No 10. Environmental Protection Authority, Western Australia.

Gibson N., Keighery B., Keighery G., Burbidge A. and Lyons M. (1994). A Floristic Survey of the Southern Swan Coastal Plain. Western Australian Department of Conservation and Land Management and the Western Australian Conservation Council.

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.
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 application and supporting documentation, Midland Brick Company Pty Ltd. TRIM Ref DOC63523
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.
Wells, M. (1988) A Method of Assessing Water Erosion Risk in Land Capability Studies - Swan Coastal Plain & Darling Range. Resource Management Technical Report No. 73. Department of Agriculture, Western Australia. ISSN 0729 - 3135.

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)