Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2559/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: **Koppers Wood Products Pty Ltd**

1.3. Property details

Property: LOT 520 ON PLAN 301384 (PICTON EAST 6229)

Local Government Area: City Of Bunbury & Shire Of Dardanup

Colloquial name:

1.4. Application

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

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 Associtation: 968 - Medium woodland; jarrah, marri & wandoo; and Beard Vegetation Association: 1000 - Mosaic: Medium forest; jarrah-marri / Low woodland; banksia / Low forest; teatree (Melaleuca spp.). Heddle Vegetation Complex: Guildford: A 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-poolei). Minor components include E. rudis - M. rhaphiophylla; and Heddle Vegetation Complex: Southern River - Open woodland of E. calophylla - E. marginata - Banksia species with fringing woodland of E. rudis - M. rhaphiophylla along creek beds.	Removal of 2.7857ha of native vegetation by mechanical methods (clear fell) for the purpose of expanding wood stockpiles and fire risk reduction. The vegetation is in very good to excellent condition.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	Vegetation condition was determined from a site visit carried out 30 September 2008, and aerial mapping Bunbury 50cm Orthomosaic (DLI 04).

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 at variance to this Principle

The applied area has been identified by the EPA (Environmental Protection Authority 2008) as having met 4 criteria for regional significance: diversity, rarity, maintenance of processes and wetland protection.

Diversity - The vegetation under application is part of a highly diverse area with respect to diversity of landforms, wetland and upland vegetation units, habitat and fauna.

Rarity - The applied area is part of a location for 1 priority and 9 poorly reserved flora species, and a location for 3 threatened bird species (Baudin's, Carnaby's and Red-tailed Black Cockatoo), 1 threatened mammal species (Western Ringtail Possum), and at least 11 bird species listed as conservation significant on the Swan Coastal Plain.

Maintenance of Ecological Processes or Natural Systems - The vegetation forms part of a regional ecological linkage McLarty/Kemerton/Twin Rivers/Preston River/Gwindinnup (north-south ecological linkage).

General Criteria for the Protection of Wetland, Streamline and Estuarine Fringing Vegetation and Coastal Vegetation - the area is less then 1km from an EPP Lake, 140m from a major river and is surrounded by

wetlands.

The Bulletin 1282 concluded that the area in which the proposed clearing lies within a regionally significant natural area of high value which should be retained (EPA 2008). It recommends that the vegetation be retained as Regional Open Space (ROS) in future amendments to the Greater Bunbury Region Scheme (GBRS).

Additionally, seven priority species are associated with the same soil and vegetation types, as the area under application. These are: Synaphea odocoileops (P1, 6.4km north east), Villarsia submersa (P4, 4.4km north east), Anthotium junciforme (P4, 5.6km north east), Acacia semitrullata (P3, 7km south), Aponogeton hexatepalus (P4, 2.8km south west), Verticordia attenuate (P3, 2.5km north east), and Carex teretiacaulis (P1, 3.8km south east). All of these species occur in swamp, winter wetlands or water courses. The area is low-lying, but is not identified as a swamp or wetlands. Therefore the only priority species that may be present at the site is Acacia semitrullata, which is found on sand plains. The site visit report (2008) stated that a flora survey would need to be carried out to determine the presence/absence of this species.

The clearing of native vegetation as proposed is therefore at variance to this principle.

Methodology

References:
- EPA (2008)
- DEC (2008)

GIS database:
- SAC Biodatasets - accessed 4 Jul 08

(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 at variance to this Principle

The proposal is for the clearing of 2.786ha of native vegetation within a largely cleared local area. The EPA (2008) has identified the area under application as a location for 3 threatened bird species (Baudin's, Carnaby's and Red-tailed Black Cockatoo), 1 threatened mammal species (Western Ringtail Possum), and at least 9 bird species listed as conservation significant on the Swan Coastal Plain. Therefore, the clearing as proposed may be at variance to this principle.

Of the 10 declared Threatened fauna species have been recorded in the local area (10km), 6 are associated with similar vegetation types as the proposed clearing. Additionally, 4 priority species have also been recorded in the area and are also associated with similar vegetation complexes as the proposed clearing.

Threatened Fauna under the Wildlife Conservation Act 1950 within the local area:
- Phascogale tapoatafa ssp. (Brush-tailed Phascogale) 3km north west - This species is known to live in dry sclerophyll forests and open woodlands that contain hollow-bearing trees but a sparse ground cover (Naturebase 2008).

- Pseudocheirus occidentalis (Western Ringtail Possum - listed as vulnerable under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC)) has been recorded 2.9km west - Present populations mostly inhabit Coastal Peppermint-Tuart associations from Bunbury to Albany. Along the Swan Coastal Plain near Busselton the highest densities occur in habitats with dense, relatively lush vegetation, usually associated with vegetation lines (Naturebase 2008). DEC (2008) identified potential habitat for Western Ringtail Possum within the application area, and scats were seen during the site visit.

- Calyptorhynchus banksii naso (Forest Red-tailed Black Cockatoo) 7.3km south west, Calyptorhynchus latirostris (Carnaby's Black Cockatoo - listed as endangered under the EPBC Act) 7.8km north west and Calyptorhynchus baudinii (Baudin's Black Cockatoo - listed as vulnerable under the EPBC Act) 3.9km south west - These species are known to utilise Corymbia calophylla, Eucalyptus diversicolor and Eucalyptus marginate for feeding, habitat and breeding sites (Chapman et al 2005; Naturebase 2008; Chapman & Massam 2005). The vegetation under application includes a large number of Banksia trees, and is therefore likely to be utilised by these species.

- Dasyurus geoffroii (Chuditch - listed as vulnerable under the EPBC Act) 5.2km north - Chuditch are known to have occupied a wide range of habitats from woodlands, dry sclerophyll (leafy) forests, riparian vegetation, beaches and deserts (Naturebase 2008).

Priority species in the local area:
- Isoodan obesulus fusciventer (Quenda - Priority 5) 8.5km west - This species inhabits dense understoreys (Bramwell 2001).

- Macropus irma (Western Brush Wallaby - Priority 4) 4.7km west south-west - The western brush wallaby's optimum habitat is open forest or woodland, particularly favouring open, seasonally wet flats with low grasses and open scrubby thickets (Naturebase 2008). It is also found in some areas of mallee and heathland, and is uncommon in karri forest.

- Numenius madagascariensis (Eastern Curlew - Priority 4) 6.4km north west and Burhinus grallarius (Bush Stone-curlew - Priority 4) 7.6km north west - Bush Stone-curlews require sparsely grassed, lightly timbered, open forest or woodland and prefer a sparse understorey so they can see predators while foraging for insects (Department of the Environment and Heritage 2005).

Given the largely cleared landscape within which the application area lies, it is likely to provide locally significant habitat for rare and priority fauna species as it is part of the McLarty/Kemerton/Twin Rivers/Preston River/Gwindinnup north-south ecological linkage. The EPA (2008) has identified the area as being significant for the conservation of fauna species. The clearing as proposed is at variance to this principle.

Methodology

References:
- EPA (2008)
- Naturebase (2008)
- Chapman, et al (2005)
- Chapman, T. and Massam, M. (2005)
- Bramwell, E. (2001)
- DEC (2008)
- Department of the Environment and Heritage (2005)

GIS databases:
- CALM Managed Lands and Waters - CALM 01/06/05
- Mattiske Vegetation (01/03/1998)
- SAC Biodatasets - accessed 4 Jul 08
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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

The proposed clearing occurs in medium to tall open woodland/forest of Eucalyptus calophylla, Eucalyptus wandoo, Eucalyptus marginate, Melaleuca rhaphiophylla and banksia species. The mapped soil type of the proposed area is chiefly sandy acidic yellow mottled soils, some of which contain ironstone gravel.

Two rare flora and 16 priority flora species have been recorded in the local area (10km). The rare flora species Eleocharis keigheryi has been recorded within the same vegetation and soil types, and was recorded 8.7km south east of the proposed clearing. This species, however, is an emergent water plant and occurs in freshwater creeks and clayplans and is therefore not likely to exist in the proposed clearing area.

The EPA (2008) has identified that the proposed clearing is part of area that includes the second largest population in the state of the rare flora Diuris drummondii (Tall Donkey Orchid). However, it was concluded that the application area lies much higher in the landscape than nearby D. drummondii populations and is therefore not likely to be a location for this species (DEC 2008).

Therefore, the clearing as proposed is not likely to be at variance to this principle.

Methodology

References:
- EPA (2008)
- DEC (2008)

GIS database:
- Mattiske Vegetation (01/03/1998)
- Heddle Vegetation Complexes - DEP 22/06/95
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 4 Jul 08
- Soils, Statewide DA 11/99

(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 various threatened ecological communities (TEC) within the local area (10km) of the proposed clearing site, however the proposal occurs well out of the buffer for any of these (the closest being 5.5km north east of the site). The clearing as proposed is not likely to be at variance to this principle.

Methodology

GIS database:
- SAC Biodatasets - accessed 4 July 08

(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 at variance to this Principle

The majority of the vegetation within the application area is a component of Beard Vegetation Association 968, with a small amount of 1000 (Hopkins et al. 2001), of which there are 32.9% and 28.7% respectively remaining state-wide (Shepherd, 2006). The application lies within the Swan Coastal Plain bioregion, within which 6.34% of vegetation association 968, and 26.8% of association 1000 remains (Shepherd, 2006).

The vegetation proposed to be cleared is also a component of Heddle vegetation complex Guildford, and a small area of Southern River, of which 5% and 19.8% respectively of the pre-European extent is remaining (Heddle, 1980). A site visit (DEC 2008) found the condition of the vegetation under application as being very good to excellent.

The local area (10km) is sparsely vegetated, with approximately 20% native vegetation remaining. The area has been identified as being part of a regionally important ecological link, namely the McLarty/Kemerton/Twin Rivers/Preston River/Gwindinnup north-south ecological linkage (EPA 2008). The EPA (2008) have identified the vegetation under application as being significant as a remnant native vegetation of high value which should be retained and recommend the vegetation to be retained as Regional Open Space in future amendments to the Greater Bunbury Region Scheme.

Given the very good to excellent condition and the regional significance of the vegetation under application, the clearing as proposed is at variance to this principle.

Methodology

References:
- EPA (2008)
- Hopkins et al. (2001)
- Shepherd (2006)
- Shepherd et al (2001)
- DEC (2008)

GIS database:
- Heddle Vegetation Complexes - DEP 22/06/95
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Local Government Authorities - DLI 8/07/04
- Mattiske Vegetation - CALM 1/03/1998
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 4 Jul 08
- NLWRA, Current Extent of Native Vegetation 20 Jan 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 may be at variance to this Principle

The clearing application area is located within the Leschenault Estuary and Preston River catchment.

The Ferguson River (a major river) is 141m north of the applied clearing and the Preston River lies 1.4km west. The vegetation under application is separated from the Ferguson River associated vegetation by cleared industrial land and a road. The clearing also falls outside the recommended buffer required for watercourses.

There is a multiple use palusplain wetland 4m north of the area under application that is likely to be in association with the Ferguson River. Additionally, the EPA (2008) has identified the area under application and the vegetation to the south of this area to be significant as it contains a conservation category wetland. As the vegetation under application is elevated in the landscape it is likely that it is not directly associated with these wetlands, however, the vegetation is likely to buffer any further degradation to them.

Therefore, the clearing as proposed may be at variance to this principle.

Methodology

References:
- Department of Water (2007)

GIS database:
- ANCA wetlands - Environment Australia 26/3/99
- CALM Managed Lands and Waters - CALM 01/06/05
- EPP Lakes Policy Area - DEP 14/05/97
- EPP, Wetlands 2004 (DRAFT) - EPA 21/7/04
- Clearing Regulations, Environmentally Sensitive Areas 30 May 2005
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC 11/04/07

- Hydrography linear (hierarchy) - DoW 13/7/06
- South Coast Significant Wetlands - WRC 10/06/2003

(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 situated on soils described as: Plain: chief soils are sandy acidic yellow mottled soils, some of which contain ironstone gravel (Northcote et al. 1968). Water erosion is considered to be a low risk given the relatively flat nature of the landscape.

The Acid Sulphate Soils risk is mapped as moderate to low.

Salinity risk mapping is not available for the area under application, however the groundwater salinity associated with the area under application is 500 - 1000mg/L and is considered marginal. The limited extent of the proposed clearing is not considered likely to increase salinity in the local area causing appreciable land degradation.

Clearing of 2.786ha is not likely to cause appreciable land degradation in an area that is already largely cleared. The proposed clearing is therefore not likely to be variance to this principle.

Methodology

References:
- Northcoate et al (1968)

GIS database:
- Acid Sulfate Soil Risk Map, Swan coastal Plain - DEC 07/08/06
- Average Annual Rainfall Isohyets - WRC 29/09/98
- Annual Evaporation Contours (Isopleths) - WRC 29/09/98
- Hydrogeology, statewide - DOW 13/07/06
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrography, linear - DOW 13/7/06
- Salinity Risk LM 25m - DOLA 00
- Soils, Statewide DA 11/99
- Topographic contours statewide - DOLA and ARMY 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 may be at variance to this Principle

The EPA (2008) has identified the applied area as being part of a regionally important ecological link, namely the McLarty/Kemerton/Twin Rivers/Preston River/Gwindinnup north-south ecological linkage. Additionally, native vegetation within the Preston Industrial Park, of which the applied area is apart of, is considered of even greater importance as it links four ecological linkages together. The EPA (2008) considers that naturally vegetated areas in the area of the linkages should be priorities for retention and protection and has recommended that the vegetation under application be retained as Regional Open Space in future amendments of the Greater Bunbury Region Scheme.

Clearing 2.786ha as proposed, in a largely cleared landscape, is likely to cause disruption to the north-south ecological linkage, and therefore impact on the environmental values of the nearby conservation reserves which include System 6 conservation reserves to the north, south east, west and south west.

The clearing as proposed therefore may be at variance to this principle.

Methodology

References:
- EPA (2008)

GIS database:
- CALM Managed Lands and Waters - CALM 01/06/05
- Hydrography, linear - DOW 13/7/06
- Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02
- System 1 to 5 and 7 to 12 areas - DEC 11/7/06

(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 may be at variance to this Principle

The application area is located within the Leschenault Estuary and Preston River catchment. The Ferguson River (a major river) is 141m north of the applied clearing and the Preston River lies 1.4km west. The recommended minimum buffer width for a major river is 100m, although the area 100m either side of the river is

sparsely vegetated and therefore is unlikely to be acting as an affective buffer.

The Preston river catchment is 43% cleared, and the Ferguson River catchment is 70% cleared (Department of Water, 2007). The EPA (2003) has identified the area under application as being important for the protection of the watercourses and wetlands in the area, and the vegetation is likely to buffer them from any further degradation.

The clearing of native vegetation as proposed may be at variance to this principle.

Methodology

References:
- Deparment of Water (2007)
- EPA (2008)

GIS database:
- Evapotransporation Isopleths - WRC 29/09/98
- Groundwater Salinity Statewide DoW 13/07/06
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrographic catchments, subcatchments - DoW 01/06/07
- Hydrography, linear - DOW 13/7/06
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Salinity Risk LM 25m - DOLA 00
- Topographic Contours, Statewide - DOLA 12/09/02

(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 vegetation under application is located on chiefly sandy soils which have low waterlogging risks. The applied area occurs in low lying areas and this contributes to the susceptibility of the area flooding. However, given the soil type and the likelihood of any surface runoff flowing into the nearby Ferguson river, the clearing is not likely to increase the incidence of flooding on the clearing site.

The Leschenault Estuary/Preston River and the Ferguson River catchments are largely cleared. The clearing of 2.786 of vegetation is unlikely to significantly increase the surface runoff, and therefore is not likely to increase the incidence and/or intensity of flooding of the local area.

The clearing of native vegetation as proposed is not likely to be at variance to this principle.

Methodology

References:
- Department of Water (2007)

GIS database:
- Environmental Impact Assessments - EPA 22/2/07
- Evaporation Isopleths - WRC 29/09/98
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrographic catchments, subcatchments - DoW 01/06/07
- Hydrography, linear - DoW 13/7/06
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The applied area is zoned as general industrial and lies in the Preston Industrial Park.

The EPA recommends that all remnant vegetation within the Preston Industrial Park (of which the applied area is part of) is considered to be regionally significant and should be retained. It is recommended that the vegetation in its entirety be reserved as Regional Open Space in future amendment to the GBRS and appropriately managed.

A submission was received from the proponent.

Methodology

References:
- EPA (2003)

GIS database:
- Cadastre - Landgate Dec 07
- Native Title Claims - LA 2/5/07
- RIWI Act, Groundwater Areas - DoW 13/07/06

- RIWI Act, Irrigation Districts - DoW 13/07/06
- Town Planning Scheme Zones - MFP 31/08/98
- Country Area Water Supply Act (Part IIA) Clearing Control Catchments 29/06/2006
- Aboriginal Sites of Significance 26 April 2007
- Public Drinking Water Source Areas (PDWSAs) - 07/02/06

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing is at variance to Principles (a), (b) and (e), may be at variance to Principles (f), (h) and (i) and is not likely to be at variance to the remaining clearing Principles.

5. References

Bramwell, E. (2001). Living with Quendas. Department of Conservation and Land Management, WA.

Chapman, T. and Massam, M. (2005). Reducing fruit damage by Baudin's Cockatoo. Fauna Note No. 01/2005. Department of Conservation and Land Management, WA. Available from: http://www.dec.wa.gov.au/animals/fauna-management/fauna-species-profiles.html

Chapman, T., Johnstone, R. and Massam, M. (2005). Red-tailed Black Cockatoo. Fauna Note No. 06/2005. Department of Conservation and Land Management, WA.

DEC (2008), Site Visit Report, Unpublished, Department of Environment and Conservation Trim Ref DOC65856.

Department of the Environment and Heritage, (2005). Bush Stone-Curlew. Australian Threatened Species. Department of the Environment and Heritage, Canberra. Available: http://www.environment.gov.au/biodiversity/threatened/publications/index.html

Department of Water (2007), The Leschenault Estuarine System, South-Western Australia: Condition Statement and Recommendations for Management, Department of Water, Perth, Western Australia.

Environmental Protection Authority (2008) Advice on areas of conservation significance in the Prestion Industrial Park. Bulletin 1282.

EPA (2003) Greater Bunbury Region Scheme. Bulletin 1108. Environmental Protection Authority, Western Australia.

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.

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, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Naturebase (2008). Brush-tailed Phascogale. Fauna Species Profiles. Department of Environment and Conservation, WA. Available from: http://www.dec.wa.gov.au/animals/fauna-management/fauna-species-profiles.html

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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
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)