



1. Application details

1.1. Permit application details

Permit application No.: 2998/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Waroona

1.3. Property details

Property: LOT 502 ON PLAN 55310 (HAMEL 6215)
Local Government Area: Shire Of Waroona
Colloquial name:

1.4. Application

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

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 (SAC Bio Dataset 05/03/2009).	The proposal is to clear 0.072 ha of native vegetation within Hamel State Forest Reserve 60 for the purpose of the installation of an eco-heritage wetland walk trail.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Vegetation and clearing description obtained from a site inspection (DEC 2009) undertaken on the 8th March 2009.
Hedde Vegetation Complex: Forrestfield Complex. Vegetation ranges from open forest of <i>E. 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. (Hedde et al. 1980).	The vegetation within the area under application comprises 0.072 ha of tall open scrubland of <i>Acacia Pulchella</i> , <i>Acacia</i> sp., <i>Jacksonia</i> spp., <i>Xanthorrhoea</i> sp., <i>Kunzea</i> sp. and <i>Melaleuca</i> spp. over sedges, <i>Patersonia</i> sp. and herbs in a Degraded to Good condition. The area under application also has areas that have been revegetated with <i>Eucalyptus</i> saplings		

3. Assessment of application against clearing principles

Comments

The vegetation within the area under application comprises 0.072 ha of open scrubland of *Acacia Pulchella*, *Acacia* sp., *Jacksonia* spp., *Xanthorrhoea* sp., *Kunzea* sp. and *Melaleuca* spp. over sedges, *Patersonia* sp. and herbs in a Degraded to Good condition (DEC 2009a). Given the small, linear area to be cleared, low species diversity and Degraded to Good condition of the vegetation, it is considered unlikely for the area under application to provide significant habitat for fauna or comprise of high biodiversity.

The vegetation under application is associated with the Hedde Vegetation Forrestfield Complex, which has only 17%, pre-European vegetation extent remaining (EPA 2006). The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents a clearance of ecological communities with an extent below 30% of that present pre-European settlement (Commonwealth of Australia 2001). However, due to the Degraded to Good vegetation condition, the small linear area to be cleared and the historic land use as a part of a pine plantation, it is unlikely for the area under application to be representative of Forrestfield Complex or a significant remnant.

There are two records of rare flora within the local area (~5km radius) including *Synaphea stenoloba* and *Tetraria australiensis* occurring 4.9km and 5km south of the area under application. Both of these species were recorded within the same soil and vegetation type as the area under application and can be found on sandy clay soils near winter wet depressions (Western Australia Herbarium 1998-). However, given that the area under application was part of a pine plantation that was cleared in 2006 it is considered unlikely for Rare flora to occur in the area under application.

There is one known occurrence of a Threatened Ecological Communities (TEC) in the local area (~5 km radius), being Floristic Community Type (FCT) 20b: Eastern *Banksia attenuata* and/ or *Eucalyptus marginata* woodlands occurring 4.8 km south of the area under application. Given the Degraded to Good condition of the vegetation and historical land use as a pine plantation, it is not considered likely that the area would contain or be necessary for the maintenance of a threatened ecological community.

The area under application occurs within Hamel State Forest 60 Reserve. The Hamel State Forest is managed as a timber reserve and therefore, it is not considered a conservation area. Given this and that no conservation reserves occur in the local area (~5km radius) it is considered unlikely for the proposed clearing to impact on a conservation reserve.

A portion of the area under application (0.036 ha) occurs within a mapped Conservation Category Wetland (CCW), however the proposed clearing follows existing tracks and is located outside the topographic contours that demarcate the wetland area. A portion of this wetland is also mapped as an Environmental Protection Policy (EPP) Lake although the area under application is not within the EPP. The remainder of the area under application occurs within 50 metres of the boundary of this wetland. CCWs support a high level of ecological values and functions and are the highest priority wetlands for protection and must be fully protected and conserved (EPA 2006). Given this, the proposed clearing for the installation of a walk trail is considered to be at variance to Principle F: Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland. Given the relatively small (0.072 ha) and linear area to be cleared it is not considered likely for the clearing of the area under application to cause deterioration of surface or underground water quality or impact on peak flood height or duration.

The chief soils within the area under application are hard acidic yellow soils, containing ironstone gravel and associated with brown 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). However, given the small size of the proposed clearing (0.072 ha) and its linear shape, it is considered unlikely for the proposed clearing to cause appreciable land degradation through water erosion.

Methodology

References

- DEC (2009a)
- Department of Agriculture (2005)
- EPA (2006)
- Northcote et al. (1960-68)
- Western Australian Herbarium (1998-)
- GIS Databases
- Geomorphic Wetlands (Classification), Swan Coastal Plain
- SAC Bio Dataset 4/03/2009
- Soils, Statewide

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

Comments

The area under application is zoned as State Forest under the Peel Regional Scheme and as Water production, mining and recreation under the Shire of Waroona Town Planning Scheme.

The application is to clear 0.074 ha of native vegetation for the installation of a walk trail that is a part of the Hamel Eco- Historic Precinct Interpretation project (Shire of Waroona 2009).

In 2002, the Waroona Shire Council was allocated funding for the Hamel-Eco Precinct Project through Alcoa's Community Development Funding program (Shire of Waroona 2009).

The Swan Coastal District Visitor Services section provided advice and developed a concept plan for the walk trail in February 2009 (Shire of Waroona 2009).

The area under application originally was a part of a pine plantation that was cleared in 2006. Landcare, the Shire of Waroona and the community has undertaken planting and rehabilitation projects near the wetland.

The area under application has moderate to low Acid Sulphate Soil risk. Considering the small linear area proposed to be cleared it is considered unlikely for the proposed clearing to cause Acid Sulphate Soils.

Methodology

References

- DEC (2009b)
- Shire of Waroona (2009)
- GIS Databases
- Acid Sulphate Soils Risk
- Peel Regional Scheme Zones
- Town Planning Scheme Zones

4. Assessor's comments

Comment

The assessable criteria have been addressed and the clearing as proposed is at variance to Principle (f).

5. References

Shire of Waroona (2009) Application for a clearing permit and attached information. TRIM Ref DOC6808

DEC (2009a) Site Inspection Report for Clearing Permit Application CPS 2998/1 Lot 502 South Western Hwy, Hamel. Site inspection undertaken 8/03/2009. Department of Environment and Conservation, Western Australia. TRIM Ref. DOC78593.

DEC (2009b) Authorisation from Swan Region, DEC Regional Manager, Clearing application for Lot 502 South Western Hwy, Hamel. TRIM Ref. DOC77258.

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.

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.

Heddl, 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.

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.

Western Australian Herbarium (1998?). FloraBase -The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 9/03/2009).

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)

