Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1144/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: John and Tracey Schepis

1.3. Property details

Property: LOT 75 ON DIAGRAM 99609 (Lot No. 75 PLANTATION LUDLOW 6280)
Local Government Area: Shire Of Capel
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2		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: 1136 - Medium woodland; marri with some jarrah, wandoo, river gum and casurina (Shepherd et al. 2002). Heddle vegetation complex: Abba complex; dominated by open-forest of marri-jarrah-banksia and a woodland of marri (Heddle et al. 1980).	The proposal includes the clearing of 2ha of vegetation from within Lot 75 Plantation Rd, for building or construction and clearing of overgrowth. The area to be cleared consists mainly of Melaleuca spp, however other mixed sp. occur mostly as re-growth in lesser numbers: Nuytsia floribunda, Eucalyptus marginata, Corymbia calophylla and Xanthorrhoea preissii, with some minor weed invasion. Vegetation varies between mild dense to open woodland, and condition is considered to vary between Degraded and Good.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation condition established through site visit.

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 may be at variance to this Principle

The site visit report shows photos of vegetation ranging in condition from good to very good. It appears that there has been a history of stock grazing.

Given that the proposed clearing may provide suitable habitat for the existence of a Threatened Ecological Community and Declared Rare Flora, is indicative of an area that may present a high level of biological diversity.

The proposed clearing area also lies within the mapped east-west Wonnerup/ Ludlow river/ Gibson Forest ecological linkage as set out by the Greater Bunbury Region Scheme (GBRS). This ecological linkage was selected based on numerous factors including EPA endorsed information which encompasses flora, vegetation and fauna surveys, floristic community mapping and bird movement patterns.

The area proposed to be cleared exists within a highly cleared landscape and vegetation types found in the notified area retain only 5% (approx) of pre-European vegetation. This suggests that the level of biodiversity within this site may be higher than much of the vegetation within the local area (10km radius).

Given the above factors the proposed clearing maybe at variance to this principle.

Methodology

DEC Site Visit Report - 05/06
Greater Bunbury Region Scheme - Scheme Documents
GIS databases:
- Heddle Vegetation Complexes - DEP 21/06/95
- Pre European Vegetation - DA 01/01
- Busselton 50cm Orthomosaic - DLI 03

(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 may be at variance to this Principle
Within the local area (10km radius) the following species of conservation significance have been recorded:

- Carnaby's Black Cockatoo (Calyptorhynchus latirostris)
- Forest Red-tailed Black Cockatoo (Calyptorhynchus banksii naso)
- Western Ringtail Possum (Pseudocheirus occidentalis)
- White-tailed Black Cockatoo (relates to either Baudin's Black Cockatoo or Carnaby's Black Cockatoo)
- Quenda (Isoodon obesulus fusciventer)
- Western Brush Wallaby (Macropus irma)
- Southern Brush-tailed Phascogale (Phascogale tapoatafa tapoatafa)
- Black Bittern (Ixobrychus flavicollis australis)

Site visit photo's taken from points within the proposed clearing show that much of the vegetation is characteristic of wetland areas and the understorey is quite sparse. There does not appear to be trees large enough to provide nesting sites for the above mentioned cockatoo's, nor is there an abundance of trees likely to provide feeding habitat.

The vegetation may provide habitat for species associated with wetlands, such as Bitterns and other waterbird species. Amphibians, reptiles and invertebrates may also be utilising the wetland habitat.

The proposed clearing area also lies within the mapped east-west Wonnerup/ Ludlow river/ Gibson Forest ecological linkage as set out by the Greater Bunbury Region Scheme (GBRS).

Given the wetland specific habitat within the proposed clearing and the ecological linkage identified in the GBRS the proposal maybe at variance to this principle.

Methodology

Greater Bunbury Region Scheme - Scheme Documents
GIS Databases
- Fauna Properties

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

Comments

Proposal may be at variance to this Principle
There are 205 records of 17 species of Declared Rare Flora within the local area (10km radius)

Numerous Priority 2 species have been recorded in the local area. Approximately half of the recorded species have been recorded in the same vegetation type as the area under application.

10 Priority 3 species and 10 priority 4 species have also been recorded in the local area.

In an application of a neighbouring property, the Species and Communities Branch, DEC, recommended that due to the local floristic abundance of conservation significant species a floristic survey be undertaken within the notified area. As the area is situated within a highly cleared landscape the importance of retaining remnant vegetated areas increases so as to prevent destruction of suitable habitat and clearing of these species.

The proposal therefore may be at variance to this Principle.

Methodology

GIS databases:
- Declared Rare and Priority Flora List - CALM 13/08/03
- Busselton 50cm Orthomosaic - DLI 03

(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 may be at variance to this Principle
Within the local area (10 km radius) there are 15 records of 6 different Threatened Ecological Communities (TECs). The closest recorded TEC is approximately 520m to the west of the proposed clearing. This TEC has

been identified as SCP10a, known as 'Shrublands on dry clay flats'. This TEC has a large buffer to protect hydrogeolgical factors from disturbing the TEC. The proposed clearing is not within this buffer area.

Advice was received from Species and Communities Branch, Department of Environment Conservation (SAC DEC) in regards to the likelihood of this TEC occurring within the proposed clearing area. The TEC lies within a different vegetation type and consists of species such as Eucalyptus sp. and Nuytsia sp. For these reasons SAC DEC felt that this TEC was unlikely to occur within the proposed clearing area.

However SAC DEC went on to say that, without a floristic survey, it was difficult to rule out the possibility of other local TEC's being present within the proposed clearing area. Therefore the proposed clearing may be at variance to this principle.

Methodology

GIS databases:
- Threatened Ecological Communities - CALM 15/7/03
- Threatened Plant Communities - DEP 06/95
- Busselton 50cm Orthomosaic - DLI 03

(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 vegetation proposed to be cleared is a component of Beard Vegetation Association 1136 (Hopkins et al. 2001) of which there is 5.4% (Shepherd et al. 2001) of the pre-European extent remaining and therefore of an 'Endangered' status for Biodiversity conservation (Department of Natural Resources and Environment 2002). The vegetation under application is also within the Capel Shire of which there is 35.9% of pre-European extent remaining.

The vegetation of the area applied to clear is a component of Heddle Abba Complex (Heddle et al. 1980) of which there is 5.6% of the pre-European extent remaining and therefore of an Endangered status for biodiversity conservation (Department of Natural Resources and Environment 2002).

The State Government is committed to the National Objectives Targets for Biodiversity Conservation 2001-2005 (AGPS 2001) which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-1750 (Department of Natural Resources and Environment, 2002; EPA 2000). Therefore the proposed clearing is at variance to this principle.

Methodology

Department of Natural Resources and Environment (2002)
Heddle et al. (1980)
Hopkins et al. (2001)
Shepherd et al. (2001)
GIS databases:
- Heddle Vegetation Complexes - DEP 21/06/95
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00
- Local Government Authorities - DLI 8/07/04
- Pre European Vegetation - DA 01/01
- Busselton 50cm Orthomosaic - DLI 03

(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 at variance to this Principle

A portion of the area proposed to be cleared lies within an EPP Lake and two Multiple Use wetlands. It is also considered that vegetation within the notified area not lying directly in wetland areas, may be in association or providing buffering effects to these wetlands. Therefore this proposal is at variance to this principle.

Methodology

GIS databases:
- EPP Lakes - DEP 28/07/03
- Geomorphic Wetlands (classification), Swan Coastal Plain.
- Hydrography Linear - DoE 1/2/04

(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 proposed to be cleared has been mapped as having a combination of 'no known risk' to 'low to moderate' risk of Acid Sulfate Soils. The area is also mapped as having a shallow aquifer with groundwater salinity levels between 500-1000mg TDS.

Soil types are described as being sandy dunes with intervening sand and clayey swamp flats. Given the low elevation of the site and mixed soil types it is possible that water logging resulting from clearing may occur.

However a report by DAFWA (2006) advised that 'the proposal to clear tea-tree undergrowth is so small that it is unlikely to cause significant degradation risks'.

Given the above it is unlikely that clearing would be at variance to this principle.

Methodology Northcote et al 1960-68
DAFWA (2006)
GIS Databases:
- Topographic Contours, Statewide - DOLA 12/09/02
- Groundwater Salinity, Statewide - DOW
- Hydrogeology, Statewide - DOW
- Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC

(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
Part of the area proposed to be cleared lies within an EPP Lake and is part of a greater series of EPP Lakes, conservation category and resource enhancement wetlands within the local area (10km radius).

Within the local area are the following conservation areas:

Tuart Forest National Park - approx 5km W
Ludlow State Forest - approx 6km W
Coolilup State Forest - approx 3.6km W
Capel Nature Reserve - approx 2.4km NW
Ruaben Townsite Nature Reserve - approx 6.9km SW
Un-named Nature Reserve - approx 7km S
Millbrook State Forest - approx 8km SE
Jarrahwood State Forest - approx 7.5km SE
Boyanup State Forest - approx 8.7km E

there are also 2 covenanted properties within the local area:-

CALM covenant - approx 2km NW
AGWA heritage covenant - approx 3km SW

The proposed clearing area also lies within the mapped east-west Wonnerup/ Ludlow river/ Gibson Forest ecological linkage as set out by the Greater Bunbury Region Scheme (GBRS). The property that contains the proposed clearing is also part of a continuous vegetated link between the covenanted areas, wetlands and Capel Nature Reserve.

Although the proposed area to be cleared is relatively small, it's location within an EPP Lake and as part of an ecological link in a highly cleared landscape, suggests the likelihood of an impact on the values of these conservation areas.

Methodology Greater Bunbury Region Scheme
GIS databases:
- CALM Managed Lands and Waters - CALM 1/06/04
- Register of National Estate - EA 28/01/03
- CALM covenents
- AGWA Heritage covenents
- Geomorphic Wetlands (Classification) - Swan Coastal Plain
- Busselton 50cm Orthomosaic - DLI 03

(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 area under application is within the Vasse Wonnerup Estuary Hydrographic Catchment Area and the Busselton-Capel RIWI groundwater area.

As the proposed clearing area has sections located within an EPP Lake and multiple use wetland, it is likely that removal of vegetation will directly affect the surface water of these wetlands. Removal of vegetation from within and surrounding the wetland may cause an increase in the nutrient load caused by disturbance to detritus on the wetland substrate. There may also be an increase in turbidity and increase of sedimentation. The hydrological regime of the wetland may also be affected with an increase surface flow to the wetland.

Methodology GIS databases:
- Hydrographic Catchments, Catchments - DoE 3/4/03
- RIWI Act, Groundwater Areas - WRC 13/06/00

(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

DAFWA (2006) advise that the proposal to clear tea-tree undergrowth is so small that it is unlikely to cause significant degradation risks.

Due to the scale of the proposed clearing, flooding impacts are unlikely to result. Therefore, the proposal is not likely to be at variance with this Principle.

Methodology

DAFWA (2006);
GIS Database:
-Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The area proposed to be cleared lies within the Greater Bunbury Region Scheme (GBRS). The notified area is zoned Rural under the GBRS. The proposed clearing area lies within the mapped east-west Wonnerup/ Ludlow river/ Gibson Forest ecological linkage.

DEC sent the proponent a letter advising the issues associated with this clearing application. DEC received a submission from the proponent, however the issues outlined by DEC were not addressed in the proponent's submission.

Methodology

Greater Bunbury Region Scheme - Scheme Documents.
GIS Databases:
- Environmental Impact Assesment Properties

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Building or Structure	Mechanical Removal	2	Building, removal of teatree overgrowth/regrowth for pasture.

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.

Environmental Protection Authority, 2003, Greater Bunbury Region Scheme - Bulletin 1008, Appendix 4, http://www.epa.wa.gov.au/article.asp?ID=1683&area=EIA&CID=16&Category=EPA+Bulletins

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.

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., 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)