1. Application details

1.1. Permit application details

Permit application No.: 892/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: MR Wil Pearce Chief Exective Officer Shire of Boyup Brook

1.3. Property details

Property:

Local Government Area: Shire Of Boyup Brook & Shire Of Bridgetown-Greenbushes

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
		Mechanical Removal	Road construction or maintenance
		Mechanical Removal	Road construction or maintenance
		Mechanical Removal	Road construction or maintenance
		Mechanical Removal	Road construction or maintenance
15.5		Mechanical Removal	Road construction or maintenance

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
ABELS ROAD: Mattiske Complex - Wilga (WG) Woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla on sandy-gravels on low divides in the subhumid zone.	The vegetation along this road is in completely degraded condition. The vegetation's structure has been altered, with mature trees existing over a weed dominated understorey.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation condition establishes through photographs sent from applicant, TRIM ref DOC4260.
AREA ROAD: The majority of vegetation along this road has been identified as the following: Mattiske Complex - Kulikup (KU2) Open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla with some Eucalyptus wandoo and occasional Eucalyptus astringens fs24 (near breakaways) over Acacia microbotrya on undulating uplands in the semiarid zone. The remaining vegetation has been identified as: Mattiske Complex - Brockman (BR), Gnowergerup (GW) & Lukin (LK2).	The vegetation along this road is in degraded condition with some areas consisting only of weed and pasture species. Other areas along the road contain one to two native tree species, and scattered native understorey species. Weeds are dominant.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation condition established through site visit, TRIM ref DOC4018.
BOYUP BROOK-ARTHUR RIVER ROAD: The majority of vegetation along this road has been identified as the following:	The majority of this road is completely degraded consisting of mature trees with severe weed invasion and no distinct structure. There is a small section of	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation condition established through site visit, TRIM ref DOC4051.

Mattiske Complex - Darkin (Dk3) Open woodland of Allocasuarina huegeliana-Acacia acuminata with occasional Eucalyptus rudis and Eucalyptus wandoo on variable slopes near granite outcrops and woodland of Eucalyptus astringens-Eucalyptus wandoo on breakaways in the arid zone. The remaining vegetation has been identified as: Mattiske Complex - Newgalup (NWg2), Condinup (CP2), Darkin (Dk5), Darkin (Dk1), Darkin (Dk4), Newgalup (NW2), Lukin (LK2), Dalmore (DM2) & Newgalup (NWf2).	the road considered to be in degraded condition which still retains its basic structure, with some native ground cover species existing however weeds are still dominant.		
JAYES ROAD: The majority of vegetation along this road has been identified as the following: Mattiske Complex - Newgalup (NWg1) Woodland of Corymbia calophylla-Eucalyptus marginata subsp. marginata on slopes, open heath on shallow soils near granites, open forest of Eucalyptus rudis-Eucalyptus wandoo on the valley floors in the subhumid zone. The remaining vegetation has been identified as: Mattiske Complex - Dalmore (DM1), Lukin (LK1), Newgalup (NW1), Newgalup (NWf2), Newgalup (NWf1), Condinup (CP1) & Gnowergerup (GW).	The vegetation along this road is in completely degraded with scattered mature trees existing over an understorey dominated by exotic species.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation condition established through site visit, TRIM ref DOC4036.

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

The condition of the vegetation within the road reserves proposed to be cleared is considered to range from Completely Degraded to Degraded (Keighery 1994). This condition has likely been caused by the intensive uses of the surrounding land for cropping, pasture and livestock.

The areas under application that are completely degraded have an understorey dominated by exotics and in some areas consist only of pasture and weed species with no native species present.

Other areas under application considered to be in degraded condition contain 1-2 native tree species with scattered native understorey species.

It is unlikely the vegetation associated with the proposed road widening will comprise a high level of biological diversity due to the neighbouring landuses and condition rating.

Methodology

DEC site visit (09/2006)
Keighery (1994)

(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

The condition of the vegetation proposed to be cleared ranges from Completely Degraded to Degraded (Keighery 1994). The roads have sections where no native species are present and contain only pasture and weed species, other areas consist of mature trees with scattered understorey species.

Given the degraded condition of the roadside vegetation it is unlikely the proposed clearing will have a significant impact on fauna species within the local area.

Methodology

Keighery (1994)
DEC site visit (09/2006)

(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 no mapped Declared Rare Flora (DRF) or Priority Flora within 10km of Area Road or Abels Road.
The closest DRF or Priority Flora near Boyup Brook-Arthur River Road is a DRF species (Rulingia sp. Trigwell Bridge) 2.6km from the proposed clearing, this DRF is not within the same vegetation complex as the closest area of vegetation under application.
The closest DRF or Priority Flora near Jayes Road is a Priority 4 taxa (Villaria submersa) 2.6km from the proposed clearing, this species is not within the same vegeation complex as the cloasest area of vegeation under application.

Due to the vegetation under application ranging from Completely Degraded to Degraded (Keighery, 1994) and the distance between the areas under application and the mapped rare flora, the proposal is unlikely to contain DRF or impact on local populations.

Methodology

DEC site visit (09/2006)
GIS databases:
- Declared Rare and Priority Flora List - CALM 13/08/03

(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 is not likely to be at variance to this Principle

Mapping indicates there are no existing Threatened Ecological Communities or Threatened Plant Communities within the Shire of Boyup Brook, therefore the proposed clearing is unlikely to be at variance to this principle.

Methodology

GIS Database:
- Threatened Ecological Communities - CALM 15/7/03
- Threatened Plant Communities - DEP 06/95

(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 may be at variance to this Principle

The proposed clearing is located across the shire of Boyup Brook and within the Jarrah Forrest Bioregion. The extent of native vegetation within these areas is 45.2% and 58.7% respectively.

The roads proposed to be cleared are predominantly within Mattiske vegetation complexes Darkin (Dk3), Kulikup (KU2), Newgalup (NWg1) and Wilga (WG).
In total the roads to be cleared cover 20 Mattiske vegetation complexes. Of these vegetation complexes ten are classed as vulnerable** (having 10-30% remaining) and nine are classed as endangered** (having under 10% vegetation remaining).

The condition of the vegetation within the road reserves proposed to be cleared varies from Completely Degraded to Degraded (Keighery 1994). Some areas along the road reserves consist only of pasture and weed species. Therefore, the areas under application are not considered to be representative of the identified vegetation types.

Part of the Shire of Boyup Brook also lies within the agricultural zone of EPA position statement No. 2. The EPA do not support the further reduction in native vegetation through clearing for agriculture and support active management by landholders to maintain environmental values of remaining vegetation.

Given the above, the proposed clearing may be at variance to this principle. To mitigate the loss of vegetation within this agriculture zone, conditions will be placed on the permit to ensure an offset plan is developed by the Shire and approved by the Department's CEO prior to the commencement of any clearing under this permit.

Methodology **Department of Natural Resources and Environment (2002)
EPA (20020)
Havel (2002)
Hopkins et al. (2001)
Shepherd et al. (2001)
GIS databases:
- Mattiske Vegetation - CALM 24/3/98
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00
- Local Government Authorities - DLI 8/07/04
- Pre European Vegetation - DA 01/01

(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 areas proposed to be cleared are within existing road reserves. All watercourses have previously been diverted through culverts or under bridges.

There are watercourses that run alongside the road reserves (within 20m from the proposed clearing), therefore the vegetation to be cleared may be riparian. However, due to the small scale of clearing proposed and the Completely Degraded (Keighery 1994) condition of most of the vegetation, the proposed clearing is unlikely to further degrade any watercourse or water quality within the shire.

Methodology

GIS databases:
- ANCA, Wetlands - CALM 08/01
- EPP Areas - DEP 06/95
- EPP Lakes - DEP 28/07/03
- Geomorphic Wetlands (Mgt Categories) Swan Coastal Plain - DoE 15/9/04
- Hydrography Linear - DoE 1/2/04
- RAMSAR, Wetlands - CALM 21/10/02

(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 proposed clearing on roadsides may cause some short term land degradation issues in terms of localised flooding and soil erosion during works.

However these issues should be minimised as the existing roads have in place roadside infrastructure to prevent land degradation associated with roads i.e. table drains and culverts.

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

Methodology

DEC site visit (09/2006)

(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

The areas proposed to be cleared are not within any conservation areas however, one road does boarder a nature reserve. The proposed clearing will remain within the designated road reserve areas and is unlikely to impact on the adjacent reserve.

Methodology

GIS Database:
- CALM Managed Lands and Waters - CALM 1/06/04

(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

The areas under application lie within the Hardy Estuary - Blackwood River and have a mapped groundwater salinity level of 1000 to 14000 mg/L.

The proposed clearing on roadsides may cause some short term water quality issues in terms of localised surface water sedimentation during works. However these issues should be minimised as the existing roads have in place roadside infrastructure to prevent water quality issues associated with roads i.e. table drains and culverts.

Due to the small and isolated areas proposed to be cleared it is unlikely the areas under application will exacerbate existing salinity issues or increase water levels within the shire boundary.

Methodology GIS Database:
- Groundwater salinity, Statewide - 22/02/00
- Hydrographic Catchments - Catchments - DOE 23/3/05

(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**
Due to the scale and the nature of the proposed clearing it is unlikely to exacerbate the incidence or intensity of flooding in the local area.

Methodology GIS database:
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

No further statutory approvals are required to undertake the clearing.

There are three Native Title Claims over the area under application. The Department of Environment and Conservation's advertising of the application in the West Australian newspaper constitutes legal notification of the native title representative body for the purpose of the future act procedures under the Native Title Act 1993. No response was received from the representative body.

The parts of the areas under application lay within Aboriginal sites of significance, the applicant will be notified of their obligations under the Aboriginal Heritage Act 1972 in the covering letter attached to the permit to clear.

No submissions or advice have been received.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Road construction o maintenance	Mechanical Removal		Grant	Boyup Brook-Arthur River Road
Road construction o maintenance	Mechanical Removal		Grant	Area Road
Road construction o maintenance	Mechanical Removal		Grant	Jayes Road
Road construction o maintenance	Mechanical Removal		Grant	Abels Road
Road construction o maintenance	Mechanical Removal	15.5	Grant	It is recommended to grant this permit for 15.5ha for road widening with management conditions addressing dieback, weeds, recording, reporting and revegetation.

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.

EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority.

Havel, J.J. and Mattiske Consulting Pty Ltd (2002) Review of management options for poorly represented vegetation complexes, Conservation Commission.

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.

Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.

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.

Site Visit, 2006, Department of Environment and Conservation (DEC), Western Australia.TRIM ref DOC4051, DOC4036, DOC4018.

6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
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 DoE)