



1. Application details

1.1. Permit application details

Permit application No.: 2046/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Manjimup

1.3. Property details

Property: ROAD RESERVE (NORTHCLIFFE 6262)
Local Government Area: Shire Of Manjimup
Colloquial name: Road Reserve - Middleton Road

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.99		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
Beard vegetation 23: Low woodland; jarrah-banksia	The Western half of the proposed clearing is in very good condition. It retains structure with an upper storey, middle storey and some ground cover. Trees within this area are mainly Karri, Jarrah and Blackbutt.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Condition of vegetation has been assessed on site photo's provided by the proponent. Site photo's were taken in 2007.
Mattaske Vegetation complex S3: Low woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla on slopes, and mosaic of low open woodland of Melaleuca preissiana-Banksia littoralis, closed heaths and sedgeland of Cyperaceae spp. on valley floors with impeded drainage in hyperhumid and perhumid zones	The eastern half is degraded with some area's being completely cleared and other areas retaining a few upper storey species.		
Mattiske Vegetation complex A: Open forest of Eucalyptus marginata subsp. marginata-Banksia ilicifolia-Nuytsia floribunda with some Eucalyptus diversicolor on gently sloping sandy terrain in hyperhumid and perhumid zones.			

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 area proposed to be cleared is considered to be in very good condition (Keighery, 1994) throughout the western half of the road and in good - degraded condition within the eastern half of the road.

The Roadside Conservation Committee (RCC) assessed the area proposed to be cleared in 2000 and found the western half to be of high conservation value.

Site photo's indicate that species diversity and abundance is relatively low throughout the proposed clearing

area.

The regional landscape displays a highly vegetated area with many of those areas under secure tenure. Although the RCC has classified part of the road as displaying high conservation value, when the area is looked at in a regional context there is greater biological diversity to be found in other areas.

It is therefore considered that the proposed clearing is unlikely to be at variance to this principle.

Methodology RCC advice, 2008
SAC biodatsets, accessed 9 Jan 2008
Site photo's, 2007
Keighery, 1994
GIS Databases

(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**
Records of fauna within the local area show some threatened crustaceans and the western mud minnow. As the vegetation to be cleared is not associated with a waterway these species will not be impacted upon.

There are nearby records of Quokka (*Setonix brachyurus*) within the Warren State Forest. Mainland Quokka habitat is generally confined to densely vegetated swamps, tea-tree thickets along creek beds and dense heath on slopes.

As the vegetation along the roadside is highly disturbed with little groundcover it is unlikely that it provides suitable habitat for the Quokka.

There are some larger trees that may provide foraging and nesting habitat for avian and reptile species, and the area is likely to act as a corridor for some fauna species. However given the abundance and connectivity of excellent condition (Keighery, 1994) vegetation within the local area, it is unlikely that vegetation within the road reserve is providing significant habitat.

Methodology SAC Biodatasets, accessed 9 Jan 08
Naturebase, accessed 10 Jan 08
Site Photos, 2007
Keighery, 1994
GIS Databases:
- CALM Managed Lands and Waters
- Northcliffe 1.4m Orthomosaic - DLI00

(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**
Within the local area (10km radius) there are two records of Declared Rare Flora (DRF).

Kennedia glabrata is found predominantly in habitat with shallow pockets of soil on granite outcrops and is therefore unlikely to be associated with the proposed clearing area.

Caladenia christineae has two populations one found in more upland, drier situations and the more common species is found in winter wet flats. The Species and Communities Branch, DEC, viewed the site photo's and advised that the area was unlikely habitat for this species.

Within the local area there was also a record of one Priority 1 species, *Hemigenia rigida*. This species is commonly associated with hillslopes, granite outcrops, flats and ironstone ridges and found on lateritic gravelly soils. Given these habitat requirements it is unlikely this species would occur within the proposed clearing area.

Methodology SAC biodatsets, accessed 9 Jan 2008.
Site photo's, 2007
Species and Communities Branch, DEC, 2007
Brown et al, 1998
GIS Databases
- Topographic Contours, Statewide
- Northcliffe 1.4m Orthomosaic - DLI00
- Hydrography, linear (hierarchy)

(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**
 Within the local area (10km radius) there are no known Threatened Ecological Communities (TEC) or Priority Ecological Communities (PEC). Given the large amount of surrounding secure vegetation across numerous vegetation complexes, it is unlikely that the proposed clearing would be at variance to this principle.

Methodology SAC Biodatasets, accessed 9 Jan 08
 GIS Databases:
 - Northcliffe 1.4m Orthomosaic - DLI00

(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 area proposed to be cleared is well represented across all vegetation types and complexes.

Pre-European	Current extent (ha)	Remaining (ha)	Conservation** (%)	% In reserves status	DEC Managed Land
Mattiske Vegetation Complex***					
A	397,028	355,374	89.5	Least concern	44.1
S3	6,230	5,612	90.1	Least concern	21.6
Beard Vegetation Complex****					
23	41,062	30,901	75.3	Least Concern	66.9

The area surrounding the proposed clearing, at a local and regional level, is well vegetated with numerous national parks and state forests securing this vegetation.

The Roadside Conservation Committee has assessed the road proposed to be cleared and found that the western half of the road represents an area of high conservation value, while the eastern half is classified as medium-low value.

Given the large amount of vegetation remaining and in secure tenure, and the small size of the proposed clearing it is unlikely that clearing would be at variance to this principle.

Methodology Shepherd et al, 2001
 RCC advice, 2008
 GIS Databases:
 - Mattiske Vegetation
 - Pre-European Vegetation
 - Northcliffe 1.4m Orthomosaic - DLI00

(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**
 The area proposed to be cleared is vegetation within an existing road reserve. Hydrographical mapping shows minor tributaries crossing the area under proposal, however the current infrastructure of drains and culverts allow for the flow through of these minor watercourses.

Given that the area proposed to be cleared is small and infrastructure is in place to deal with local watercourses it is unlikely that the proposed clearing is at variance to this principle.

Methodology Site Plans, 2007
 Site Photos, 2007
 GIS Databases
 - Hydrography, linear_1
 - Northcliffe 1.4m Orthomosaic - DLI00
 - Geodata, Lakes

(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 mapped hydrogeology consists of rocks of low permeability with granitoid lithology. This indicates that in this area of high rainfall, approximately 1300mm per year, there may be some risk of water logging. As there is currently drainage infrastructure in place, waterlogging is unlikely to cause noticeable impacts.

Salinity is currently mapped at 500-1000 TDS mg/L, given this low level and the small amount proposed to be cleared, approximately 1 ha, it is not likely that local salinity level will be impacted.

Given the proposed clearing is a small and linear area it is unlikely that there will be an increase in wind or water erosion.

The above matter indicate that the clearing as proposed is not likely to be at variance to this principle.

Methodology Site photos, 2007
Site plans, 2007
GIS Databases:
- Rainfall, Mean Annual
- Groundwater Salinity, Statewide
- Hydrogeology, Statewide
- Topographic Contours, Statewide
- Northcliffe 1.4m Orthomosaic - DLI00

(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

Within the local area there are six known conservation areas:

- * Jane National Park
- * Boorara Gardner National Park
- * Greater Hawke National Park
- * Warren State Forest
- * Gardner State Forest
- * Shannon State Forest

The eastern edge of the proposed clearing is adjacent Jane National Park. The area proposed to be cleared is small and is unlikely, in this well-vegetated region, to be providing additional habitat, significant ecological linkages or buffering functions to the National Park.

It is recommended that if the permit is granted a dieback condition be placed upon the permit as a preventative measure to inhibit the spread of the pathogen into the National Park.

Methodology Site Photo's, 2007
GIS Databases:
- Northcliffe 1.4m Orthomosaic - DLI00
- CALM Managed Lands and Waters

(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

Mapping indicates that there is a major tributary of the Gardner River running approximately 550m to the north of the proposed clearing, with minor tributaries crossing through the proposed clearing area. The elevation of the notified area shows that the terrain gradient increases towards the east. Due to this any sedimentation created by the clearing is unlikely to runoff into the major tributary. Additionally, as there is road infrastructure in place drains and culverts will assist in the prevention of sedimentation within the minor tributaries.

As the proposed clearing is small (1 ha) and linear it is not likely that water tables will be affected, thereby not impacting on salinity or pH levels in the local area.

The area proposed to be cleared is not within a proclaimed or gazetted catchment area and together with the above factors indicates that the proposed clearing is unlikely to be at variance to this principle.

nope - gardner river 300m north. Minor tributaries crossing clearing area, not an issue

Methodology Site photo's, 2007
Site plans, 2007

GIS Databases:
- Topographic Contours, Statewide

(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

Given the small scale of clearing and the infrastructure of drains and culverts already in place, the proposed clearing is unlikely to be at variance to this principle.

Methodology Site photos, 2007
Site plans, 2007

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

Comments

Methodology

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Road construction or maintenance	Mechanical Removal	0.99	Road Reconstruction

5. References

- Brown, A, Thomson-Dans, C, Marchant, N, 1998, Western Australia's threatened flora, Department of Conservation and Land Management
- DEC, 2008, SAC bio datasets, accessed 9th January 2008
- 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.
- 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.
- Shire of Manjimup, 2007, Site photo's and site plans, TRIM ref DOC 32054

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)

