Department of Environment
Government of Western Australia

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 879/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: MR Andrew McNish Chief Executive Officer Shire of Busselton

1.3. Property details

Property:
Local Government Area: Shire Of Busselton
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
5.46		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
PUZEY ROAD Mattiske Complex - Wilyabrup (W2) Open forest of Corymbia calophylla-Allocasuarina decussata-Agonis flexuosa on deeply incised valleys in perhumid and humid zones.	The vegetation is in degraded condition, and consists of mature trees with no mid or understorey native species. The existing weeds are aggressive and dominant.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Information taken from photographs of roadside vegetation that were submitted with the application. TRIM Ref DOC4111
AMBERGATE ROAD Mattiske Complex - Abba (AB) Woodland and open forest of Corymbia calophylla on flats and low rises in the humid zone.	The vegetation is in degraded condition. It consists of mature Corymbia calophylla with very few native understorey species. The understorey is dominated by weeds.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Information taken from photographs of roadside vegetation that were submitted with the application. TRIM Ref DOC4108
ABBEYS FARM ROAD The majority of vegetation along this road has been identified as the following: Mattiske Complex - Cowaramup (CW2) Woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla on slopes and low woodland of Melaleuca preissiana-24 Banksia littoralis on depressions in perhumid and humid zones. The remaining vegetation has been identified as: Mattiske Complex - Cowaramup (C2) Open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Banksia grandis on lateritic uplands in	The majority of vegetation is in good condition. The vegetation is made up of mature trees with little to no mid or understorey native species remaining. The majority of understorey species are exotic.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Information taken from photographs of roadside vegetation that were submitted with the application. TRIM Ref DOC4096

perhumid and humid zones.			
CANAL ROCKS ROAD: The majority of vegetation along this road has been identified as the following: Mattiske Complex - Gracetown (GE) Closed heath of Olearia axillaris-Rhagodia baccata-Agonis flexuosa on seaward slopes in hyperhumid to humid zones. Other complexes found along the proposed areas include: Gracetown (G3) - Mixture of low woodland of Agonis flexuosa, open forest of Corymbia calophylla-Eucalyptus marginata subsp. marginata and tall open forest of Eucalyptus diversicolor with some Corymbia calophylla and Eucalyptus cornuta on eastward facing slopes in the hyperhumid zone. Kilcarnup (KE) - Tall shrubland to closed heath of Agonis flexuosa-Spyridium globulosum on exposed slopes of calcareous dunes in hyperhumid to humid zones. Wilyabrup (We) - Low woodland and woodland of Corymbia calophylla-Eucalyptus marginata subsp. marginata with some Banksia spp. on exposed slopes in hyperhumid to humid zones.	The vegetation's structure is intact and there is no obvious sign of weed disturbance.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	Information taken from photographs of roadside vegetation that were submitted with the application. TRIM Ref DOC4087
WYADUP ROAD: The majority of vegetation along this road has been identified as the following: Mattiske Complex - Gracetown (GE) Closed heath of Olearia axillaris-Rhagodia baccata-Agonis flexuosa on seaward slopes in hyperhumid to humid zones. Other complexes found along the proposed road include: Wilyabrup (We) Low woodland and woodland of Corymbia calophylla-Eucalyptus marginata subsp. marginata with some Banksia spp. on exposed slopes in hyperhumid to humid zones. Kilcarnup (KE) Tall shrubland to closed heath of Agonis flexuosa-Spyridium globulosum on	The vegetation's condition varies from excellent to completely degraded along Wyadup Road. The majority of the areas where the proposed widening will occur have little to no native vegetation remaining. Some area however are in excellent condition. Within these areas the vegetation's structure is intact and few weeds species are present.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Information taken from photographs of roadside vegetation that were submitted with the application. TRIM Ref DOC4085

exposed slopes of calcareous dunes in hyperhumid to humid zones.			
YELVERTON NORTH ROAD The vegetation along this road has been identified as the following: Mattiske Complexes - Yelverton (Y) Woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Allocasuarina fraseriana-Agonis flexuosas24 and open woodland of Corymbia calophylla on low undulating uplands in the humid zone. Yelverton (Yw) - Woodland of Allocasuarina fraseriana-Nuytsia floribunda-Agonis flexuosa-Banksia attenuata on slopes and open forest of Corymbia calophylla-Eucalyptus patens-Eucalyptus marginata subsp. marginata on the lower slopes and woodland of Eucalyptus rudis-Melaleuca rhaphiophylla on valley floors in the humid zone.	The condition of the vegetation along the road varies between very good and good. In some areas the vegetation structure is intact with few weeds visible. In other areas the vegetation consists of mostly mature trees with no mid or understorey. In these areas weeds are agressive and dominant.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Information taken from photographs of roadside vegetation that were submitted with the application.
GALE ROAD The majority of vegetation along this road has been identified as the following: Mattiske Complex - Treeton (T) Woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla with some Allocasuarina fraseriana on mild slopes in the perhumid zone. Other complexes found along the proposed road include: Yelverton (Y) Woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Allocasuarina fraseriana-Agonis flexuosas24 and open woodland of Corymbia calophylla on low undulating uplands in the humid zone. Yelverton (Yw) - Woodland of Allocasuarina fraseriana-Nuytsia floribunda-Agonis flexuosa-Banksia attenuata on slopes and open forest of Corymbia calophylla-Eucalyptus patens-Eucalyptus marginata subsp. marginata on the lower slopes and woodland of Eucalyptus rudis-Melaleuca rhaphiophylla on valley floors in the humid zone.	The condition of the vegetation along the road varies from degraded to good, with the majority of the area in degraded condition. The vegetation consists of mature trees with no mid or understorey present. Weeds are dominant and agressive.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Information taken from photographs of roadside vegetation that were submitted with the application.

VASSE YALLINGUP SIDING ROAD The majority of vegetation along this road has been identified as the following: Mattiske Complex - Yelverton (Y) Woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Allocasuarina fraseriana-Agonis flexuosas24 and open woodland of Corymbia calophylla on low undulating uplands in the humid zone. Other complexes found along the proposed areas include: Yelverton (Yw) Woodland of Allocasuarina fraseriana-Nuytsia floribunda-Agonis flexuosa-Banksia attenuata on slopes and open forest of Corymbia calophylla-Eucalyptus patens-Eucalyptus marginata subsp. marginata on the lower slopes and woodland of Eucalyptus rudis-Melaleuca rhaphiophylla on valley floors in the humid zone. Abba (Ad) Woodland of Corymbia calophylla-Agonis flexuosa-Allocasuarina fraseriana-Nuytsia floribunda on mild slopes in the humid zone. Abba (AB) Woodland and open forest of Corymbia calophylla on flats and low rises in the humid zone.	The vegetation's condition along the road is mostly good. Its structure has been altered with many areas containing few mid and understorey species. Obvious edge effects are visible however the weeds present do not seem to be dominating in most areas.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Information taken from photographs of roadside vegetation that were submitted with the application. TRIM Ref DOC4084
SPENCER ROAD Mattiske Complex: Cowaramup (Cd) Woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Banksia ilicifolia on sandy rises and low woodland of Melaleuca preissiana on lower slopes in the hyperhumid to humid zones.	The vegetation's condition varies between good and excellent. Much of the area under application appears to retain it's basic structure, with few weeds present. In some areas however the structure is significantly altered with only mature trees and an understorey remaining. Some of these mature trees, either jarrah or marri are dead or dying, with Agonis flexuosa remaining healthy. Within these areas weeds exist and are dominant.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Information taken from photographs of roadside vegetation that were submitted with the application. TRIM Ref DOC4083
GEOGRAPHE BAY ROAD Mattiske Complex -	The vegetation proposed for clearing is in very good condition. The vegetation retains its basic structure with an overstorey, midstorey and understorey being present throughout most of the area. In many areas weeds are aggressive and dominant.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Information taken from photographs of roadside vegetation that were submitted with the application. TRIM Ref DOC4113

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

Listed under principle (e) assessment are the roads, widths and areas under application, totalling 5.46 hectares. The extent of clearing into the road reserves will not exceed 2 m either side of the existing road.

Based on the photographs of the vegetation proposed for clearing the condition of the vegetation varies between completely degraded and excellent. The following roads were rated as having a condition rating of very good or better - Canals Rocks Road, Wyadup Road, Yelverton Road, Spencer Road and Geographe Bay Road. The extent of proposed clearing within these roads totals two hectares. The above mentioned roads are seen to have some biodiversity value, however given the small area proposed for clearing, removing the vegetation within the road reserves is unlikely to impact the overall biodiversity value of the local area.

To mitigate any loss of biodiversity within the road reserves and surrounding areas, the proposed clearing will be carried out in accordance with both flora and fauna management conditions and also dieback and week control conditions which will be placed on the permit.

The Shire is also committed to budgeting for rehabilitation for each financial year and has budgeted $30,000 each year for the past five years to rehabilitation. Over this time the Shire has rehabilitated over 60 hectares of land.

Methodology Rehabilitation Report 2006

(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

The Shire is proposing to widen ten existing roads, therefore the vegetation under application is within road reserves only. Each road reserve is approximately 20m wide with the maximum new width after the proposed works of 7m. This will result in at least 6m being retained either side of the existing road.

The vegetation's condition varies from completely degraded to excellent (Keighery, BJ 1994). Most of the vegetation has been rated to be in at least good condition, with mature trees present along nearly all roads.

14 Priority species and 30 Threatened species have been recorded as existing within the Shire of Busselton. Given the condition of much of the roadside vegetation and the number of threatened or priority fauna recorded within the Shire it is possible the vegetation under application may be providing habitat to native fauna.

Of the 10 roads being widened, two appear to be providing a linkage to significant remnants within the local area, these being Abbeys Farm Road and Yelverton Road.

Further assessment of both roads found other linkages do exist between the remnants within the local areas. It should also be noted that at least 6m either side of each widened road will be retained, and it is likely this will allow continued movement by fauna using the vegetation as a corridor.

Given the above information the proposed clearing may be at variance to this principle. To migitate any loss of habitat within the areas proposed to be cleared conditions will be placed on the permit to ensure surveys are undertaken by a fauna specialist to identify any vegetation that may be suitable as habitat for specially protected fauna under the Wildlife Conservation Act, and where applicable translocation of fauna will be undertaken.

Methodology Road Works Manual 2006
GIS Application:
- Threatened and Priority Fauna - CALM 13/08/03

(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 is one mapped species of Declared Rare Flora (DRF) within 1km of all the proposed areas to be cleared. Caladenia excelsa has been recorded approximately 130m south of the clearing proposed along Spencer Road. The species exists within the same Mattiske vegetation complex and is linked by vegetation.

Some of the areas under application contain mature trees but do not have an intact middle or understorey layer. Much of the understorey for these areas is dominated by exotic species, therefore reducing the possibility of any DRF existing within the area.

Several road reserves to be cleared were rated as having vegetation to be in very good to excellent condition.

Given the number of DRF mapped in the local area for these roads there is a possibility the vegetation may be supporting DRF or Priority Species.

Given the above information the clearing proposal may be at variance to this principle. To ensure all DRF and priority species are identified and managed accordingly a condition will be placed on the permit to ensure surveys are undertaken by a flora specialist to identify the presence of any DRF or priority species within the areas proposed for clearing. Where DRF or priority species are identified the Shire will be required to submit the records to the Department of Environment and Conservation ensuring no species are removed unless approved by the CEO.

Methodology GIS database:
- Declared Rare and Priority Flora List - CALM 01/07/05
- Pre-European Vegetation - DA 01/01

(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

33 Threatened Ecological Communities (TEC) exist within the Shire of Busselton. The closest occurrence of a TEC to an area under application is on Vasse-Yallingup Siding Road where the identified community has been mapped at approximately 940m north east of the road.

Each TEC has a buffer mapped to ensure it is sufficiently protected so there are no adverse impact on the community by surrounding landuses. The buffer for the above mentioned TEC has been mapped at a 500m radius. The proposed road widening along Vasse-Yallingup Siding Road is not within this buffer zone for the TEC.

Based on the distances between the other mapped occurrences of TECs and the areas proposed to be cleared it is unlikely there will be a significant impact on the TECs within the Shire.

Methodology GIS Database:
- Threatened Ecological Communities - CALM 15/7/03
- Clearing Regulations - Environmentally Sensitives

(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 Busselton of which there is 45.5% of native vegetation remaining.

The three Bioregions mapped within the Shire are the Swan Coastal Plain Bioregion, the Jarrah Forrest Bioregion and the Warren Bioregion. The extent of native vegetation within these areas is 43%, 58.7% and 86.6% respectively.

A breakdown of the vegetation complexes and associations can be found in section 2.2 of this report under Items of Interest.

Mapped vegetation complexes with a conservation status of Vulnerable* (10-30% remaining) occur within Yelverton North Road, Gale Road, Ambergate Road, Vasse-Yallingup Siding Road and Abbeys Farm Road.

A mapped vegetation complex with a conservation status of Endangered* (<10% remaining) occurs within Ambergate Road and Vasse-Yallingup Siding Road.

The proposed clearing will occur no more than 2m either side of the existing road, which should limit the possible impacts caused to adjacent vegetation. Weed and Dieback management conditions for all cleared areas will be placed on the permit to ensure a reduction in long term net loss of vegetation within the Shire.

The Shire of Busselton has also budgeted $30,000 each year for the past five years to rehabilitate approximately 60 hectares throughout the Shire. The Shire budgets for rehabilitation each financial year and has committed to do so in the future.

Road	Width (m)	Length (km)	Area (Ha)
Canal Rocks	6.2	2	0.4
Wyadup	6.2	1	0.4
Yelverton North	6.2	2.12	0.85
Gale	6.2	2	0.8
Vasse-Yallingup Siding	6.2	3.5	1.4
Spencer	4	0.72	0.145

Geographe Bay	6	0.54	0.216
Puzey	6.2	0.41	0.164
Ambergate	6.2	0.72	0.288
Abbeys Farm	7	2	0.8
TOTAL			5.46ha

Methodology Shepherd et al (2001)
Rehabilitation Report 2006
GIS Database:
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00
- Local Government Authorities - DLI 8/07/04
- Pre-European Vegetation - DA 01/01
- Mattiske Vegetation - CALM 24/3/98

(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**
All of the areas under application are within road reserves that already exist. All watercourses have previously been diverted through culverts or under bridges (in some cases upgrades of these diversions are planned as part of the road widening).

Due to the vegetation under application being contained in road reserves where existing roads exist and given the distance from EPP Lakes, Conservation Category and Resource Enhancement wetlands, this proposal is not likely to be at variance to this principle.

Methodology GIS database:
- Hydrography Linear (hierarchy) - DoE 13/4/05

(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 within the ten road reserves may cause some short term land degradation issues in terms of localised flooding and soil erosion during works.

These issues however should be minimised as works on the existing roads and interserctions have in place roadside infrastructure to prevent land degradation associated with roads ie. table drains and culverts.

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

Methodology Road Works Manual 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**
Eight of the ten road reserves proposed for clearing are not within conservation areas nor do they neigbour any conservation areas.

Both Canal Rocks Road and Wyadup Road are located within the Leeuwin Naturaliste Ridge Area, which is a Registered National Estate. Canal Rocks Road is being widened by 2m on the southern side of the road only, while Wyadup Road is being widened 2m either side of the existing road. All proposed roads will remain within the defined road reserve area.

Whilst it is acknowledged the proposed clearing may impact on the identified Registered National Estate, given the minimal amount of clearing proposed and the conditions to be placed on the permit, minimising the risk of the introduction and spread of weeds, it is concluded the proposal is not likey to significantly impact on the environmental values of the area.

Methodology GIS Database:
- Register of National Estate - EA 28/01/03

(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 is not likely to be at variance to this Principle**
The areas under application lie within the Busselton Coast Catchment.

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

Due to the small and isolated areas proposed to be cleared for the associated roads works, it is unlikely the areas under application will cause salinity issues or increase water levels within the shire boundary.

Methodology GIS Database:
- Hydrographic Catchments - Catchments - DOE 23/3/05
- WIN Groundwater Sites, Other - non DEWCP (current)

(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 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

There are two 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.

There are no other statutory approvals that are required to undertake the clearing.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Road construction o maintenance	Mechanical Removal	5.46	Grant	Canal Rocks Road (Smiths Beach Rd to western end)
Road construction o maintenance	Mechanical Removal		Grant	Spencer Road (0.8 SLK from Caves Rd)
Road construction o maintenance	Mechanical Removal		Grant	Geographe Bay Road
Road construction o maintenance	Mechanical Removal		Grant	Vasse-Yallingup Siding Road (Hayes Road to Wildwood Road)
Road construction o maintenance	Mechanical Removal		Grant	Abbeys Farm Road (James Road to Thornton Road)
Road construction o maintenance	Mechanical Removal		Grant	Wyadup Road (Cape Clairault Rd to western end)
Road construction o maintenance	Mechanical Removal		Grant	Yelverton North (Yelverton Rd to circular track)
Road construction o maintenance	Mechanical Removal		Grant	Gale Road (2.3 SLK from Bussell Higway)
Road construction o maintenance	Mechanical Removal		Grant	Ambergate (start 560m east from Boallia - then 0.5 SLK)
Road construction o maintenance	Mechanical Removal		Grant	Puzey Road (start 50m north of Harmans Mill Rd)

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.

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.

Shire of Busselton - Rehabilitation Report (2006) Busselton, Western Australia

Shire of Busselton, Road Works Manual 2006 - 2007 (2006) Busselton, Western Australia

6. Glossary

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