



1. Application details

1.1. Permit application details

Permit application No.: 2022/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Busselton

1.3. Property details

Property: ROAD RESERVE (KALLOORUP 6280)
ROAD RESERVE (METRICUP 6280)
Local Government Area: Shire Of Busselton
Colloquial name: Road Reserves only

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.54		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
<p>Beard Vegetation Associations:</p> <p>3 Medium forrest; jarrah-marri</p> <p>37 Shrublands; teatree thicket</p> <p>1136 Medium woodland; marri with some jarrah, wandoo, river gum and casuarina</p> <p>Mattiske Vegetation Complexes:</p> <p>Abba (AF) Woodland of <i>Corymbia calophylla</i>-<i>Agonis flexuosa</i> and tall shrubland of <i>Myrtaceae</i>-<i>Proteaceae</i> spp. on terraces and valley floors in the humid zone.</p> <p>Abba (Aw) Mosaic of tall shrubland of <i>Melaleuca viminea</i> and woodland of <i>Eucalyptus rudis</i>-<i>Melaleuca raphiophylla</i> with occasional <i>Corymbia calophylla</i> on broad depr</p> <p>Cowaramup (Cw2) Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i>-<i>Corymbia calophylla</i> on slopes and low woodland of <i>Melaleuca preissiana</i>-24 <i>Banksia littoralis</i> on depressions in perhumid and humid</p>	<p>The areas under application are for the purpose of road widening. The proposed clearings are the result of increased traffic due to subdivisional development. Photographs supplied by the Shire of Busselton (2007) suggest that the vegetation condition of the areas to be cleared range from degraded to completely degraded (Keighery, 1994).</p>	<p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)</p>	<p>Vegetation condition was determined from aerial photos (Busselton 50cm Orthomosaic - DLI 04), and photographs of each proposed clearing site supplied by the Shire of Busselton.</p>

zones.

Cowaramup (C2) Open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Banksia grandis on lateritic uplands in perhumid and humid zones.

As above	As above	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	As above
As above	As above	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	As above

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 Shire of Busselton has submitted a clearing application to clear up to 0.54 hectares of native vegetation for road widening. The proposal involves widening and sealing of the road pavement in 2 areas of increased traffic.

Photographs of the application areas suggest that the vegetation proposed to be cleared ranges in condition from good to completely degraded (Keighery, 1994). The Shire of Busselton has been heavily cleared in parts, resulting in areas of vegetation that are highly fragmented and poorly represented. Within a highly cleared landscape.

Given the linear and degraded condition of the vegetation, it is not likely to comprise a high level of biological diversity.

Methodology Keighery (1994)
TEC Database(2007)
Florabase (2007)
GIS Database:
- Busselton 50cm Orthomosaic - DLI 04

(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**

There are possible nearby sites just over 1km from the proposed clearing area where the declared threatened Dunsborough Burrowing Crayfish (*Engaewa reducta*) may be found, as the habitat looks suitable, although, no sightings of the species have been seen in the area.

Much of the Shire of Busselton has been highly cleared, and that some of the vegetation associations within the Shire are poorly represented. Though, due to the linear structure of the clearings at both Carter Rd and Payne Rd it is highly unlikely there are necessary for the maintenance of, a significant habitat for indigenous fauna.

Methodology Shire of Busselton (2006)
GIS Database:
- Busselton 50cm Orthomosaic - DLI 04
- Fauna

(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**

Payne Road (SLK 0.90 - 2.10)

In a five kilometre radius from the proposed clearing area, there are thirty four records of Declared Rare and Priority Flora. The closest, *Chordifex gracilior* (P3) 500m from the application area is found in peaty sands, is a

rhinomatous, perennial herb and is located within Lot 62 vested in DEC directly adjacent to the clearing.

Grevillea brachystylis subsp. grandis (DRF) has been recorded approx. 2kms from Payne Road. Furthermore, Verticordia plumosa var. ananeotes (DRF) found in sandy loam, has been recorded approx. 2.5kms from the proposed clearing site.

Carter Road (SLK 0.00 - 0.25)

In a five kilometre radius from the proposed clearing area, there are sixteen records of Declared Rare and Priority Flora. Approximately 600m from the clearing area, Pultenaea pinifolia (P3) found in loam or clay, is a shrub that can grow to 3m high. Acacia inops (DRF) found in black peaty sandy and clay, is a scrambling shrub and has been recorded 1km from Carter Road.

Given that part of the Payne Road area under application is in good condition adjoining DEC vested land and DRF is recorded within the local area (5km) of both roads under application, the proposed clearing may include, or be necessary for the continued existence of rare flora. Therefore avoidance and minimisation of native vegetation cleared and flora management conditions will be placed on the permit.

Methodology GIS Database:
 - Busselton 50cm Orthomosaic - DLI 04
 - Sac Biodataset

(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**
 Payne Road

Within the adjacent DEC vested land to the south west of Payne Road clearing, there are three Threatened Ecological Communities:

- SCP1b - Eucalyptus calophylla woodlands on heavy soils
- SCP10a - Shrublands on dry clay flats and
- SCP10b - Shrublands on southern Swan Coastal Plain Ironstones.

There are no signs of dieback noted in the above communities situated at Payne Road (TEC, 2007)

Carter Road

There are no Threatened Ecological Communities within a 5km radius of the clearing.

Given the proximity of the TECs to the Payne Road area proposed to be cleared, and that one of the identified TECs is associated with Swan Coastal Plain Ironstones and listed as 'Endangered' under EPBC Act 1999, the proposal may be at variance to this principle.

To ensure all TECs are identified and managed accordingly within the Payne Road application area, a TEC management condition will be placed on the permit.

Methodology TEC Database(2007)
 GIS Database: Busselton 50cm Orthomosaic - DLI 04
 Florabase (2007)

(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**

	Pre-European (ha)*	Current Extent Remaining (ha)*	(%)*	Conservation Status**	% Pre-European Extent in IUCN 1 - 4
IBRA Bioregion:					
Jarrah Forest	4,506,674	2,426,079	58.3	Least concern	25.5
Swan Coastal Plain	1,501,456	571,758	41.8	Depleted	24.2
Shire:					
Busselton***	145,966	64,905	44.5	Depleted	

Beard Unit:						
3	2,661,514	1,863,982	70.0	Least Concern	18.4	
37	39385.716	22748.801	57.8	Least concern	12.2	
1136	48,127	2,611	5.4	Endangered	0.1	

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Complex:

Abba (AF)	19,059	2,414	12.7	Vulnerable
Abba (Aw)	90,948	4,396	4.8	Endangered
Cowaramup (Cw2)	63,666	15,236	23.9	Vulnerable
Cowaramup (C2)	128733	44578	34.6	Depleted

*Shepherd et al. 2001

**Department of Natural Resources and Environment 2002

***Within the Intensive Land Use Zone (Inside the Clearing Line)

The proposed clearing areas are within the Jarrah Forest and Swan Coastal Plain IBRA Regions, where the area of vegetation remaining is 58.3% and 41.8% respectively. Within the Shire of Busselton 44.5% of pre-European vegetation remains (Shepherd 2001). Although these percentages are higher than the National Objectives Targets for Biodiversity Conservation, 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), a number of the vegetation complexes within these regions are poorly represented and occur in a landscape that has been highly cleared.

The proposed clearing area falls within 3 different types of vegetation complexes. Within the central section of the Payne Road proposed clearing area, falls the Abba complex classified as endangered with 4.8% remaining. Uncleared portions fall mainly within a densely vegetated freehold Lot vested within DEC of 0.45sq kms. In a report provided by Mattiske Consulting (2002), it is stated that most of this complex has been cleared for agriculture and this is apparent on either side of the proposed clearing area.

Given the condition of the vegetation under application it is unlikely the proposed clearing represents a significant remnant of vegetation, however as the area may contain or support TECs and is within an area containing Abba Complex it may be at variance to this principle.

Methodology	Shepherd et al. (2001) Department of Natural Resources and Environment (2002) EPA (2000) Mattiske (1998) Mattiske (2002) GIS Database: - Busselton 50cm Orthomosaic - DLI 04 - Pre-European Vegetation - DA 10/01 - Interim Biogeographic Regionalisation of Australia - EA 18/10/00 - Mattiske Vegetation - CALM 24/3/98
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(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 proposed Payne Rd clearing is located 1km east of a major perennial watercourse (Carburup River), and 1km west of a minor perennial water course. Due to dense bush surroundings around the watercourses and the proximity of the clearing from said watercourse, the proposed clearing area is not growing in, or in association with a watercourse or wetland
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Methodology	GIS Database: - Busselton 50cm Orthomosaic - DLI 04 - Hydrology, Linear - DOE 01/02/04
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(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 Given the small and linear nature of each area, it is unlikely that the proposed clearing of native vegetation would cause appreciable land degradation.
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Methodology	GIS Database: - Busselton 50cm Orthomosaic - DLI 04
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(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**
Freehold land surrounds both proposed clearing sites. There are no conservation reserves nearby. Therefore, the proposed clearing of vegetation is not likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Methodology GIS Database:
- Busselton 50cm Orthomosaic - DLI 04
- Cadastre

(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 clearing is for road widening and given the small and linear nature of each areas it is unlikely to cause deterioration in the quality of surface or underground water.

Methodology GIS Database:
- Busselton 50cm Orthomosaic - DLI 04

(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**
The clearing area is for the purpose of road widening and given the small and linear structure of each area, it is not likely to cause, or exacerbate, the incidence or intensity of flooding.

Methodology GIS Database:
- Busselton 50cm Orthomosaic - DLI 04

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

Comments

The Shire of Busselton (2007) have advised the below works will be carried out:

Carter Road: Spray out the pasture weeds on the western verge, place topsoil and vegetation litter won from the eastern verge to the western verge and then establish suitable endemic native ground and understorey vegetation.

Payne Road: Use any good topsoil won from the widening works and place it adjacent reserve 37348 which is vested in the Shire of Busselton for rubbish disposal site as there are sections within the reserve that require revegetation.

General: Any works within a Declared Rare Flora area will involve inspection with and instruction from DEC officers.

Methodology Shire of Busselton (2007)

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Road construction or maintenance	Mechanical Removal	0.54	The assessable criteria have been addressed , and the proposal is not likely to be at variance to Principles (a), (b), (f), (g), (h), (i) and (j); may be at variance to Principles (c), (d) and (e).	TEC management, flora management and avoid/minimise conditions have been included in the permit.

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.

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 of Western Australia, CALM
- Mattiske Consulting (2002) Review of management options for poorly represented vegetation complexes, Conservation Commission
- Shepherd (2006). 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.
- 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
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)