



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 3924/1

File Number: 2010/006497-1

Duration of Permit: From 14 November 2010 to 14 November 2012

PERMIT HOLDER

Shire of Busselton

LAND ON WHICH CLEARING IS TO BE DONE

Gibbs Road Reserve, KALOORUP 6280

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.5ha of native vegetation within the area cross-hatched yellow on attached Plan 3924/1.

CONDITIONS

1. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

2. Dieback and weed control

- (a) When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:
 - (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
 - (ii) shall only move soils in *dry conditions*;
 - (iii) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
 - (iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
- (b) At least once in each 12 month period for the term of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas cleared under this Permit.

Definitions

The following meanings are given to terms used in this Permit:

dieback means the effect of *Phytophthora* species on native vegetation;

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

fill means material used to increase the ground level, or fill a hollow;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

weed/s means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

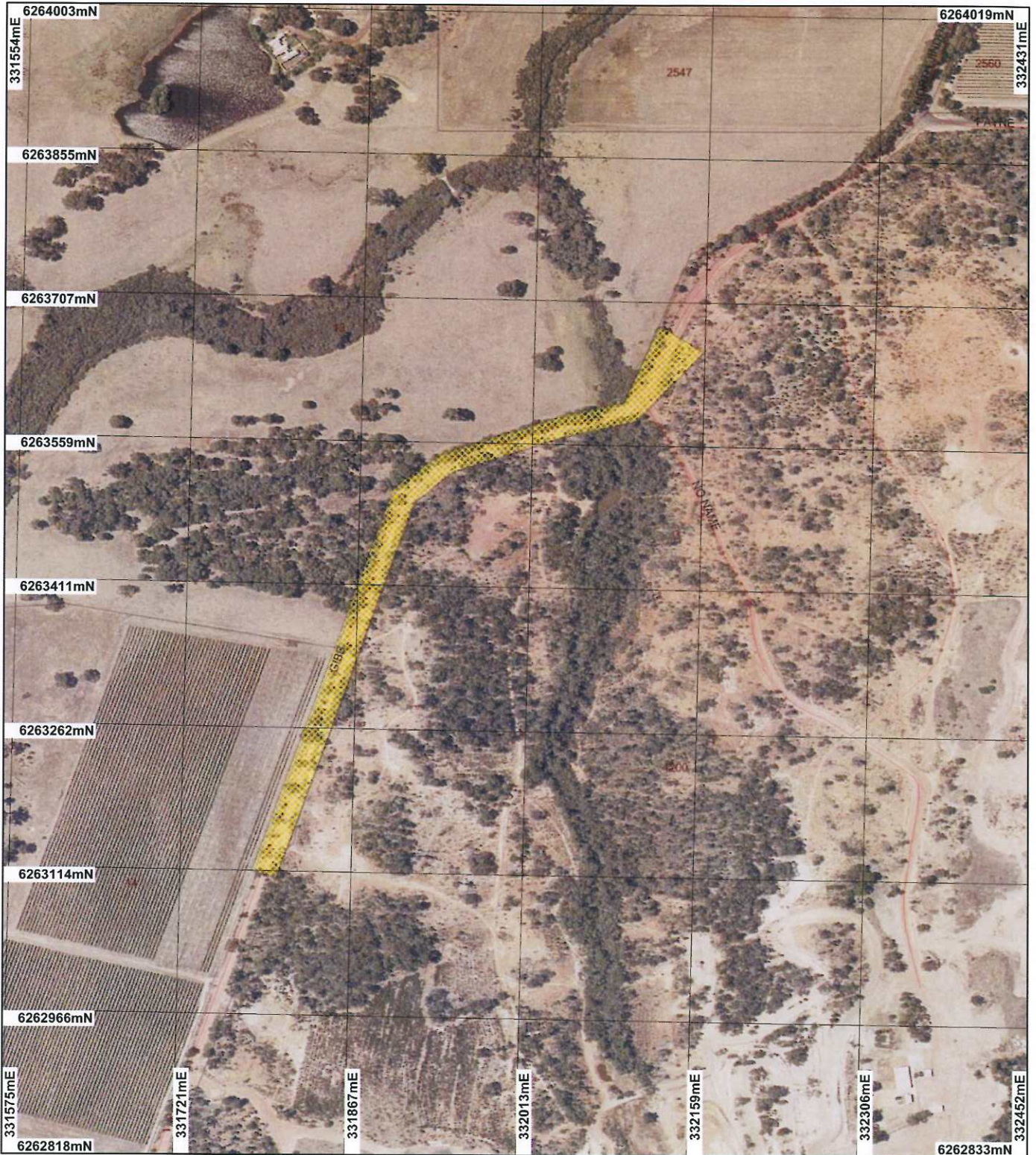


Matthew Warnock
ACTING MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

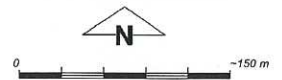
14 October 2010

Plan 3924/1



LEGEND

- | | | |
|---|-------------------------------|--|
| Road Centrelines | Cadastre for labelling | Lease / Reserve |
| Clearing Instruments | Freehold | Lease on State Forest / Timber Reserve |
| Areas Approved to Clear | Crown Reserve | Public Roads |
| Busselton 50cm Orthomosaic - Landgate 2007 | State Forest / Timber Reserve | Unallocated Crown Land |
| | Marine Park | Water |
| | Crown Lease (cont) | |



Scale 1:5206
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M.G. Warnock Date 14/10/2010

M.G. Warnock
Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



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1. Application details

1.1. Permit application details

Permit application No.: 3924/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Busselton

1.3. Property details

Property: ROAD RESERVE (KALOORUP 6280)
Local Government Area:
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.5		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
Beard vegetation association 1181: Medium woodland, Jarrah and Eucalyptus haematoxylon (Whicher Range)	The proposal is to clear 0.5ha of native vegetation within a 1.6ha area for the purpose of State Blackspot funded upgrading of road infrastructure.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The vegetation condition was determined from aerial photography.
Beard vegetation association: 1000 Mosaic: Medium forest; jarrah - marri / Low woodland; banksia / Low forest; teatree (Melaleuca spp.)	The vegetation under application consists of woodland consisting predominately of She-oak (Allocasuarina fraseriana), Jarrah (Eucalyptus marginata) and Marri (Corymbia calophylla) in a completely degraded to good condition.		
Mattiske Vegetation Complex Y Woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Allocasuarina fraseriana-Agonis flexuosas and open woodland of Corymbia calophylla on low undulating uplands in the humid zone.			
Mattiske Vegetation Complex 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 raphiophylla on valley floors in the humid zone.			
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 vegetation under application consists of She-oak (Allocasuarina fraseriana), Jarrah (Eucalyptus marginata) and Marri (Corymbia calophylla) in a completely degraded to good (Keighery 1994) condition.

It is not considered for the vegetation under application to contain significant fauna habitat nor contain or be necessary for the maintenance of a Threatened Ecological Community (TEC) or rare flora. In addition, it is not considered to represent vegetation associations or complexes that are highly cleared.

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

Methodology **References**
-Keighery (1994)
-DEC (2010)
Commonwealth of Australia (2001)
GIS Databases
-SAC Bio datasets (14/9/2010)
-Pre-European Vegetation
-Interim Biogeographic Regionalisation of Australia
-NLWA, Current Extent of Native Vegetation

(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**
Five conservation significant species have been recorded within the local area (~10 km radius) of the application area, including Western Ringtail Possum (*Pseudocheirus occidentalis*), Dunsborough burrowing crustacean (*Engaewa reducta*), Quenda (*Isodon obesulus fusciventer*), Water-rat (*Hydromys chrysogaster*), Chuditch (*Dasyurus geoffroii*).

The vegetation under application consists of woodland consisting predominately of She-oak (*Allocasuarina fraseriana*), Jarrah (*Eucalyptus marginata*) and Marri (*Corymbia calophylla*) in a completely degraded to good (Keighery 1994) condition.

One habitat tree has been recorded in the area under application however, bees have taken over the hollow and so unlikely to provide nesting habitat (DEC 2010).

Given the relatively small area proposed to be cleared (0.5ha) over an long linear area and the predominately degraded condition of the vegetation proposed to be cleared, it is not considered for the proposed clearing to be at variance to this Principle.

Methodology **References**
-Keighery (1994)
-DEC (2010)
GIS Databases
-SAC Bio datasets (14/9/2010)

(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**
The rare flora species, *Verticordia plumosa* var. *ananeotes*, *Banksia squarrosa* subsp. *argillacea*, *Chamelaucium* sp. C Coastal Plain, *Caladenia procera* and *Grevillea brachystylis* subsp. *grandis* occur within the local area (10km radius) of the application area.

The vegetation under application consists of woodland consisting predominately of She-oak (*Allocasuarina fraseriana*), Jarrah (*Eucalyptus marginata*) and Marri (*Corymbia calophylla*) in a completely degraded to good (Keighery 1994) condition.

Given the predominately completely degraded condition of the proposed clearing, it is not considered for these species to occur within the area under application.

Methodology **References**
-Keighery (1994)
GIS Databases
-SAC Bio datasets (14/9/2010)

(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**
The Threatened Ecological Community (TEC) Swan Coastal Plain 1b: Southern *Eucalyptus calophylla* woodlands on heavy soils have been recorded 470m northeast of the application area.

The vegetation under application consists of woodland consisting predominately of She-oak (*Allocasuarina fraseriana*), Jarrah (*Eucalyptus marginata*) and Marri (*Corymbia calophylla*) in a completely degraded to good (Keighery 1994) condition.

Given the predominately completely degraded (Keighery 1994) condition of the proposed clearing, it is not considered for this TEC to occur within the area under application.

Methodology References
 -Keighery (1994)
 GIS Databases
 -SAC Bio datasets (14/9/2010)

(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 vegetation under application is described as Beard vegetation association 1181 and 1000 of which there is 40.12% and 27.21% of pre-European extent remaining, respectively (Shepherd 2009). The vegetation is also described as Mattiske vegetation Complex Y and Yw of which there is 30.23% and 24.13% of pre-European extent remaining respectively (Mattiske et al 1998).

Two of the four vegetation associations/complexes of the vegetation under application retain less than the threshold level of 30% recommended in the National Objectives Targets for Biodiversity Conservation within the Swan Coastal Plain bioregion; below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

In addition, the local area can be considered as extensively cleared as there is approximately 20% of pre-European vegetation remaining in the local area (~10km radius).

However, given that the majority of the application area is in a completely degraded (Keighery 1994) condition, it is not considered for the vegetation to represent these vegetation complexes/associations. Given this, it is not considered for the proposed clearing to be at variance to this Principle.

	Pre-European (ha)	Current extent (ha)	Remaining %
IBRA Bioregion			
Swan Coastal Plain*	1501209	587889	39.16*
Shire of Busselton*	146478	62783	42.86*
Local Area (~10km radius)	31400	8526.8	~20.00
Beard type in Bioregion*			
1000	9238.75	3706.47	40.12
1181	91475.31	25621.16	27.21
Mattiske type in bioregion**			
Y	7637.22	2308.0	30.23
Yw	3841.26	926.89	24.13

** (Mattiske et al 1998)**

* (Shepherd 2009)

Methodology References
 -Shepherd (2009)
 -Mattiske et al (1998)
 -Commonwealth of Australia (2001)
 GIS Databases
 -Pre-European Vegetation
 -Interim Biogeographic Regionalisation of Australia
 -NLWA, Current Extent of Native Vegetation

(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 likely to be at variance to this Principle

The proposed clearing crosses through a tributary of the Carburnup River, a minor perennial watercourse and

also contains a small portion of the floodplain of this watercourse. In addition, riparian vegetation has been observed within the area under application.

Given this, the proposed clearing is at variance to this Principle.

Methodology GIS Databases
-Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
-Hydrography, linear

(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 chief soils of the area under application are acid earths and ironstone gravels (Northcote et al 1960-68). These soils are at risk of water erosion.

Given the long linear shape and relatively small area (0.5ha) proposed to be cleared, it is not considered for the proposed clearing to cause appreciable water erosion or any other form of land degradation.

Methodology References
-Northcote et al (1960-68)
GIS Databases
-Soils, statewide

(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 closest conservation area to the area under application is an unnamed nature reserve occurring ~ 4.8km east of the application area. Walhurra Nature Reserve and Yelverton nation Park occur ~ 7km southwest and 8.3km west of the application area.

The application area is not connected through continuous vegetation to these conservation areas nor provides a linkage or stepping stone between these conservation reserves. Given this and the distance to the nearest conservation area, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Databases
-DEC Managed Lands
-Busselton 50cm Orthomosaic - Landgate 2007

(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 has a low risk of salinity and low groundwater salinity. Given this and the relatively small area proposed to be cleared (0.5ha) it is not considered for the proposed clearing to impact underground water.

The proposed clearing crosses over a perennial watercourse and includes the clearing of riparian vegetation (~0.01ha). Therefore, there is a risk of short term sedimentation of the surface water of this watercourse. Given this, the proposed clearing may be at variance to this Principle.

Methodology GIS Databases
-Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
-Hydrography, linear
-Groundwater salinity
-Salinity Risk

(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 proposed clearing crosses through a tributary of the Carburnup River, a minor perennial watercourse and also contains a small portion of the floodplain of this watercourse.

It is not considered for the proposed clearing to cause or exacerbate flooding given its long linear shape and the relatively small area (0.5ha) proposed to be cleared.

Methodology GIS Databases

- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Hydrography, linear
- Soils statewide

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

Comments

The proposal is to clear 0.5ha of native vegetation within a 1.6ha area for the purpose of State Blackspot funded upgrading of road infrastructure.

Methodology

The area under application is zoned as road reserve under the Shire of Busselton's Town Planning Scheme.
GIS Databases
-Town Planning Scheme Zones

4. References

DEC (2010) Regional advice from South West Region on CPS 3924/1 - Gibbs Road, Karloop. Department of Environment and Conservation. DEC ref A339075.

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

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, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment 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. (2009) 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.

5. 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)