



1. Application details

1.1. Permit application details

Permit application No.: 2764/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: MR John William Knapton

1.3. Property details

Property:
 LOT 1568 ON PLAN 115202 (GREENBUSHES 6254)
 LOT 1131 ON PLAN 104973 (SOUTHAMPTON 6253)
 LOT 816 ON PLAN 101298 (SOUTHAMPTON 6253)
 LOT 88 ON PLAN 228914 (SOUTHAMPTON 6253)
 LOT 2035 ON PLAN 123979 (House No. 555 SPRING GULLY SOUTHAMPTON 6253)
 LOT 1464 ON PLAN 115189 (SOUTHAMPTON 6253)
 LOT 1054 ON PLAN 104797 (House No. 585 SPRING GULLY SOUTHAMPTON 6253)
 LOT 715 ON PLAN 101304 (SOUTHAMPTON 6253)
 LOT 124 ON PLAN 228914 (House No. 755 SOUTHAMPTON SOUTHAMPTON 6253)
 Local Government Area: Shire Of Bridgetown-Greenbushes & Shire Of Donnybrook-Balingup
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
	300	Mechanical Removal	Timber Harvesting

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: 3 - Medium forest; jarrah-marri Mattiske Vegetation: BALINGUP (BL) : Open forest of Eucalyptus marginata subsp. marginata (Jarrah) - Corymbia calophylla (Marri) on slopes and woodland of Eucalyptus rudis (Flooded Gum) on the valley floor in the humid zone. GRIMWADE (GR) : Tall open forest to open forest of Corymbia calophylla (Marri) - Eucalyptus marginata subsp. marginata (Jarrah) with Eucalyptus patens (Blackbutt) on slopes and Eucalyptus rudis (Flooded Gum) over some Agonis flexuosa (Peppermint) on lower slopes in the humid zone. HESTER (HR) : Tall open forest to open forest of Eucalyptus marginata subsp. marginata (Jarrah) - Corymbia calophylla	The application is to clear 300 trees within a 332 ha area for the purpose of creating wooden flooring. The majority of the application area consists of paddock trees with a few areas of remnant vegetation.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation condition was assessed through aerial photography.

(Marri) on lateritic uplands in perhumid and humid zones.

CATTERICK (CC1) : Open forest of *Eucalyptus marginata* subsp. *marginata* (Jarrah) - *Corymbia calophylla* (Marri) mixed with *Eucalyptus patens* (Blackbutt) on slopes, *Eucalyptus rudis* (Flooded Gum) and *Banksia littoralis* (Swamp Banksia) on valley floors in the humid zone.

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 application is for selective logging of 300 trees within a 332 hectare area for the purpose of creating timber flooring. The majority of the vegetation has been assessed as being in a completely degraded (Keighery, 1994) condition, with patches of remnant vegetation within Lots 816, 1054, 2035, 1568 and 1131 considered to be in good (Keighery, 1994) condition.

The application abuts Greenbushes State Forest and because of this, Weed and Dieback conditions have been included in the permit to minimise the spread of identified weeds and dieback to uninfected areas.

One priority flora species, *Grevillea ripicola* (P4) has been located 3.4km south east of the application area within Greenbushes State Forest and falls within the same vegetation but different soil type.

There is approximately 50% vegetation remaining within a 10km radius of the application area. Most of this is within secure tenure.

The largely degraded condition of the vegetation when compared to the surround intact remnants indicated the vegetation proposed to be cleared does not comprise of a high level of biodiversity.

Methodology

Keighery (1994)

GIS Layers:

CALM Managed Lands and Waters - CALM 01/06/05

Bridgetown 50cm Orthomosaic - Landgate 2004

Cadstre - Landgate Dec 07

Donnybrook 50cm Orthomosaic - Landgate 2004

(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 application area is surrounded by state forest which is in a better condition than the vegetation within the application area.

There are two known records of rare and priority fauna species within the local area (5km radius of the proposed clearing area). They are *Dasyurus geoffroyi* (Chuditch - Vulnerable) and *Tyto novaehollandiae novaehollandiae* (Masked Owl - Priority 3).

Chuditch's occupy large home ranges, are highly mobile and appear able to utilise bush remnants and corridors. The Masked Owl is an inhabitant of forests and woodlands, nests in tree hollows and has declined in the south-west.

There is approximately 50% vegetation remaining within a 10km radius of the application area. Most of this is within secure tenure.

The application is unlikely to be at variance to this principle, given the amount of vegetation surrounding the application area that is in better condition and the small scale of clearing (300 trees) within a 332 hectare area.

Methodology

Sac biodatasets 241108

Bridgetown 50cm Orthomosaic - Landgate 2004

Donnybrook 50cm Orthomosaic - Landgate 2004

(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 is one known rare flora species within a 5km radius of the application area. Caladenia harringtoniae is located approximately 2.3km south east of the proposed clearing area within Greenbushes State Forest. It falls within the same vegetation type but a different soil type.

As the application is for clearing of 300 trees it is unlikely that the proposal is at variance to this principle.

Methodology Sac Biodatasets 241108

(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**
 There are no known threatened ecological communities within the local area (5km radius), therefore it is unlikely that the vegetation under application is necessary for the maintenance or buffer of a significant ecological community.

Methodology Sac biodataset (241108)

(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**

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% in reserves DEC Managed Land
IBRA Bioregions***				
Jarrah Forest	4,506,656	2,440,941	54.16	24.91
Shire*				
Donnybrook-Balingup	156,029	91,179	58.44	8.45
Bridgetown-Greenbushes	121,152	70,490	58.18	22.45
Mattiske Vegetation Complex**				
GR	220,421	152,292	69.1	N/A
BL	594,461	301,634	50.7	N/A
HR	322,526	265,488	82.3	N/A
CC1	274,435	192,294	70.1	N/A

* (Shepherd et al. 2007)

** (Mattiske Consulting 1998)

The remaining vegetation is well represented the IBRA region (54.16%), the shires and Mattiske vegetation complexes (all above 50%).

There is approximately 50% vegetation remaining within a 10km radius of the application area. Most of this is within secure tenure.

The proposal is unlikely to be at variance to this principle, given the amount of vegetation surrounding the proposed clearing area that is in better condition than that within the application area.

Methodology Shepherd (2007)
 Mattiske (1998)
 GIS Layer:
 CALM Managed Lands and Waters - CALM 01/06/05
 Bridgetown 50cm Orthomosaic - Landgate 2004
 Cadstre - Landgate Dec 07
 Donnybrook 50cm Orthomosaic - Landgate 2004

(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 Blackwood River is located approximately 1.9km west of the application area. A tributary of this, Norilup

creek, runs through Lot 1568 and smaller minor perennials watercourses fall within most lots of the proposed clearing area.

Although watercourse run through the application area, the proposal is unlikely to be at variance to this principle, given the amount of vegetation surrounding the application area that is in better condition and the small scale of clearing (300 trees) within a 332 hectare area.

Methodology DoW (2005)
GIS Layers:
Hydrography linear - DOW 13/7/06
Hydrography linear (hierarchy) - DoW 13/7/06

(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 application is to clear 300 trees within a 332 hectare area. Given the size of the clearing in relation to the large size of the application area, it is unlikely that the proposal is at variance to this principle.

Methodology GIS Layer:
Soils, Statewide DA 11/99
Topographic contours statewide - DOLA and ARMY 12/09/02
Hydrogeology, Statewide 05 Feb 2002

(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 may be at variance to this Principle**
The application area is adjacent to Greenbushes State Forest and a timber reserve vested within the Conservation Commission. The application is to remove 300 trees from a 332 hectare area. As the vegetation within the application is considered to be in a degraded to good (Keighery, 1994) condition, and within the local area (10km radius) approximately 70% of the vegetation is within secure tenure and in better condition, it is unlikely that the vegetation under assessment provides better habitat or contributes as an ecological link. However, the vegetation may provide a buffer to these reserves, so to minimise any impact on the adjacent nature reserves, weed and dieback conditions will be placed on the permit.

Methodology GIS Layer:
CALM Managed Lands and Waters - CALM 01/06/05
Hydrography, linear - DOW 13/7/06
Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02
System 1 to 5 and 7 to 12 areas - DEC 11/7/06

(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 topography of the application has a moderate relief towards the watercourses that run through the site. Therefore clearing near these watercourses may reduce the quality of surface water.

Groundwater salinity is classified as marginal (500-1000mg/L TDS) which is an acceptable drinking level.

Given the above, the proposal may be at variance to this principle. To mitigate this variance, a condition will be placed on the permit to ensure that a buffer of 30m (DoW, 2005) of riparian vegetation be retained along the watercourses.

Methodology DoW (2005)
GIS Layers:
Evapotranspiration Isopleths - WRC 29/09/98
Groundwater Salinity Statewide DoW 13/07/06
Hydrographic catchments, catchments - DoW 01/06/07

(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 local area of the proposed clearing received an average of 900mm rainfall and 800mm evapotranspiration rate each year. The hydrogeology consists of low permeability, fractured and weathered rocks of Gniess and migmatite. Although the hydrogeology has low permeability, as the application is for 300 trees within an 332 hectare area it is unlikely that the proposal is at variance to this principle.

Methodology GIS Layers:
Evaporation Isopleths - WRC 29/09/98
Hydrographic catchments, catchments - DoW 01/06/07
Hydrography, linear - DoW 13/7/06
Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The applicant has applied for a commercial producer's licence through the Department of Environment and Conservation (DOC67069).

Two submissions were received (DOC66982 and DOC67811) and the concerns raised have been addressed under the clearing Principles.

Methodology

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing may be at variance to Principle (h) and (i) and is not likely to be at variance to the remaining clearing Principles.

5. References

- DoW (2005). Department of Environment (2005) Water Quality Protection Note: Vegetation Buffers to Sensitive Water
- 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.
- Shepherd, D.P. (2007). 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
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)

