Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1431/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: **Belleng VDM P/L on behalf of Millport Nominees P/L**

1.3. Property details

Property: LOT 9002 ON PLAN 37111 (Lot No. 9002 WHITE GUM COONDLE 6566)
LOT 405 ON PLAN 103195 (COONDLE 6566)

Local Government Area: Shire Of Toodyay

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
5.1		Mechanical Removal	Hazard reduction or fire control

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 4: Medium woodland; marri and wandoo. (Hopkins et al, 2001; Shepherd, 2006)	The areas under application comprise nine areas ranging from 0.2ha to 1ha (total area is 5.1ha). Seven of the areas are located within Lot 9002, a 122ha property (zoned Special Rural); and two areas are located within Lot 405, a 16ha property (zoned Special Rural). The nine areas (5.1ha) are approximately 7.5km north-west of Toodyay town site.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition of the native vegetation under application was sourced from the Site Inspection (2007).
Heddle Vegetation Complex: Bindoon Complex: No description available. (Heddle et al, 1980)			
Mattiske Vegetation Complex: Bindoon Complex- Woodland of Eucalyptus loxophleba on the slopes, flanked by woodlands of Eucalyptus wandoo-Eucalyptus accedens on the breakaways and upper slopes in the perarid zone. (Mattiske Consulting, 1998)	The areas under application are within a 12-lot Rural Residential Development. Nine areas, located within 6 of the 12 lots, are proposed to be cleared to establish Hazard Protection Zones (thinning of vegetation to 4-6 tonnes/hectare), in accordance with a Bushfire Management Plan. The vegetation under application is wandoo woodland. The vegetation consists of an upperstorey of wandoo (Eucalyptus wandoo) and york gum (Eucalyptus loxophleba), sparse areas of native midstorey (Acacia acuminata), and an understorey comprising predominantly of weeds with sparse areas of native vegetation (Site Inspection, 2007).		

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 areas under application comprise nine areas ranging from 0.2ha to 1ha (total area is 5.1ha). Seven of the areas are located within Lot 9002, a 122ha property; and two areas are located within Lot 405, a 16ha property. The areas under application are within a 12-lot Rural Residential Development. Nine areas, located within 6 of the 12 lots, are proposed to be cleared to establish Hazard Protection Zones (thinning of vegetation to 4-6 tonnes/hectare), in accordance with a Bushfire Management Plan.

A site inspection (2007) of the applied area identified the vegetation under application to be in a predominantly degraded condition, comprising of an upperstorey of wandoo (Eucalyptus wandoo) and york gum (Eucalyptus loxophleba), sparse areas of native midstorey (Acacia acuminata), and an understorey comprising predominantly of weeds with sparse areas of native vegetation (Site Inspection, 2007). There is one fauna species, (P4) Westralunio carteri (Fresh water mussel), of conservation significance recorded within the local area (5km radius). Further, during a site survey of the subject site (Lot 9002 and Lot 405) (Belleng VDM, 2006), five bird and one mammal species (Western Grey Kangaroo) were observed.

Given the high level of weed disturbance, the sparseness of the native vegetation and the low habitat value, it is unlikely that the areas under application comprise a high level of biodiversity.

Methodology

Reference:
- Belleng VDM Pty Ltd (2006)
- Site Inspection (2007)

(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

A site inspection (2007) of the applied area identified the vegetation under application to be in a predominantly degraded condition, comprising of an upperstorey of wandoo (Eucalyptus wandoo) and york gum (Eucalyptus loxophleba), sparse areas of native midstorey (Acacia acuminata), and an understorey comprising predominantly of weeds with sparse areas of native vegetation (Site Inspection, 2007).

There is one fauna species, (P4) Westralunio carteri (Fresh water mussel), of conservation significance recorded within the local area (5km radius). Further, Belleng VDM (2006) conducted a site survey of the subject site (Lot 9002 and Lot 405), in March 2006. During the site survey five bird and one mammal species (Western Grey Kangaroo) were observed at the subject site.

Given the degraded condition of the vegetation and the sparseness of the understorey, it is unlikely that the vegetation within the area under application comprises significant habitat for fauna indigenous to Western Australia.

Methodology

References:
- Belleng VDM Pty Ltd (2006)
- Site Inspection (2007)

GIS Database:
- SAC Bio Datasets 301007

(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 are 67 known records of one Declared Rare Flora, being Grevillea flexuosa (DRF), within the local area (5km radius) with nine records occurring in Lot 9002. The nine records occur within an area of 75.95ha of native vegetation to be retained for public open space, which is adjacent to the areas under application (Belleng VDM Pty Ltd, 2006). The 75.95ha are to be ceded to the Crown for the Conservation of Flora and Fauna, in accordance with the WA Planning Commission subdivision approval: Condition 11 (WAPC, 2005).

Grevillea Flexuosa is listed as Rare in Western Australia and Endangered under the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 (Belleng VDM Pty Ltd, 2006).

Further, Belleng VDM (2006) conducted a site survey of the subject site (Lot 9002 and Lot 405), in March 2006. During the site survey Grevillea flexuosa (DRF) was observed at the subject site. The species was located in a gully within close proximity of the cleared paddock on Lot 12, which is the south-western lot (area of 6.7ha) located within the proposed 12-lot Rural Residential Development (Belleng VDM Pty Ltd, 2006). An Ecological Map of the subject site shows the location of Grevillea flexuosa (DRF) to be outside of the areas under application within the public open space (Belleng VDM Pty Ltd, 2006), and separated (south-west) to the nearest area under application by a approximately 150m of cleared paddock.

The following Priority species are known to occur in the local area (5km radius) (closest being 0.7km):
- Calytrix sylvana (Priority 4)
- Wurmbea drummondii (Priority 4)
- Grevillea candolleana (Priority 2)
- Grevillea corrugata (Priority 1)
- Caladenia arrecta (Priority 4)

Of the five species of Priority Flora located in the local area, Calytrix sylvana and Wurmbea drummondii occur within the same soils and Mattiske vegetation complex as those under application. However, no Priority species were identified during a site survey of the subject site (Belleng, 2006).

Given that the rare flora, Grevillea Flexuosa, occurs within the public open space and is located approximately 150m south-west to the nearest area under application and separated by cleared paddock , it is considered the clearing as proposed is unlikely to be at variance to this Principle.

Methodology References:
- Belleng VDM Pty Ltd (2006)
- WAPC (2005)

GIS Databases:
- Hydrography, linear - DOE 01/02/04
- Mattiske Consulting (1998)
- SAC Bio Datasets 301007
- Soils, Statewide - DA 11/99

(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 occurrences of Threatened Ecological Communities (TEC) within the local area (10km radius). The nearest recorded Ecological Communities, being Priority Ecological Communities, are located approximately 19.2km north and 24.5km north-west of the areas under application. It is therefore unlikely that the vegetation proposed to be cleared comprises the whole or part of or is necessary for the maintenance of a TEC.

Methodology GIS Database:
- SAC Bio Datasets 301007

(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 identified as Beard vegetation type 4 and Mattiske Bindoon complex, of which there is 23.3% (Shepherd, 2006) and 29.6% (Mattiske Consulting 1998) of native vegetation remaining. In addition, the Beard vegetation type is identified as having 26.3% (Shepherd, 2006) representation within secure tenure, which is above the recommended JANIS Forests Criteria (1997) of 15% representation in secure tenure.

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents the clearance of ecological communities with an extent below 30% of that present Pre-European settlement (Commonwealth of Australia, 2001). The vegetation associations (Beard and Mattiske) in the area under application are below the recommended minimum of 30% representation.

However, Aerial imagery and vegetation mapping of the local area (5km radius) shows approximately 50% remnant vegetation to be remaining. In addition, there is 50.8% of native vegetation remaining within the Shire of Toodyay.

Given the above, the vegetation applied to be cleared is not considered significant as a remnant of native vegetation, being representative of vegetation associations that have been extensively cleared.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	Conservation status****	In secure tenure (%)
IBRA Bioregion*					
- Jarrah Forest	4,506,674	2,426,079	53.8	Least Concern	
Shire of Toodyay**	173,440	88,082	50.8	Least Concern	
Vegetation type*					
Beard: Unit 4	1,054,316	245,361	23.3	Vulnerable	26.3
Heddle:					

Bindoon Complex		No information available			
Mattiske*** Bindoon	266,761	78,976	29.6	Vulnerable	-

* (Shepherd, 2006)
** (Shepherd et al, 2001)
*** (Mattiske Consulting 1998)
**** (Department of Natural Resources and Environment 2002)

Methodology

References:
- Commonwealth of Australia (2001)
- Department of Natural Resources and Environment (2002)
- Heddle et al (1980)
- Janis Forests Criteria (1997)
- Mattiske Consulting (1998)
- Shepherd et al (2001)
- Shepherd (2006)

GIS Databases:
- Pre-European Vegetation - DA 01/01
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- NLWRA, Current Extent of Native Vegetation - DA 30/01/01
- Northam 1m Orthomosaic - DLI 12/03

(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

Tributaries of Toodyay Brook (a minor non-perennial watercourse) flow from west to east within Lot 9002 and Lot 405, adjacent to three areas under application and through five areas under application. A site inspection (2007) of the areas under application identified wandoo (Eucalyptus wandoo), york gum (Eucalyptus loxophleba) and jam trees (Acacia acuminata); which are not considered to be wetland dependent species.

Given the vegetation under application is not considered to be wetland dependent, the clearing as proposed is considered unlikely to be at variance to this Principle.

Methodology

Reference:
- Site Inspection (2007)

GIS Databases:
- Hydrography, linear - DOE 01/02/04

(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 landform of the areas under application and the surrounds can be described as low hilly to hilly terrain that comprises of valleys that are frequently narrow and have short fairly steep pediments, along with breakaways, mesas, and occasional granite tors (Northcote et al, 1960). The chief soils are hard acidic yellow mottled soils along with sandy acidic yellow mottled soils, all of which contain moderate to large amounts of ironstone gravels in their surface horizons (Northcote et al, 1960). These soils are not considered to be at risk to wind erosion, but may be at risk to water erosion.

Contour mapping identifies gentle relief with the areas under application located mid-slope in the landscape. The clearing as proposed may result in an increase in surface water runoff causing erosion gullies and lead to an increase of sedimentation of the adjacent tributaries and Toodyay Brook.

Given the clearing as proposed is for thinning of vegetation only, rather than the complete clearing of the native vegetation within the nine areas under application, the clearing as proposed is considered unlikely to cause appreciable land degradation.

Methodology

Reference:
- Northcote et al. (1960)

GIS Databases:
- Soils, Statewide - DA 11/99
- Topographic Contours, Statewide - DOLA 12/09/02

(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

There are three conservation reserves within the local area (5km radius), namely Rugged Hills Nature Reserve adjacent to Lot 405 and Lot 9002; an unnamed Nature Reserve (Crown Reserve 19904; also identified as a System 6 conservation reserve) 500m north north-east; Julimar State Forest (also identified as a System 6 conservation reserve and listed on the Register of National Estate) 2.4km and 4.4km west; and Poison Gully Nature Reserve 3.5km north of the areas under application.

Further, an area of 75.95ha of native vegetation for public open space, located within Lot 9002 and adjacent to the areas under application, is to be ceded to the Crown for the Conservation of Flora and Fauna, in accordance with WA Planning Commission subdivision approval: Condition 11 (Belleng VDM Pty Ltd, 2006; WAPC, 2005). This public open space that is to be conserved will act as a buffer, minimising the impact on the conservation values of the nearby conservation reserves. Therefore, the clearing as proposed is considered unlikely to be at variance to this Principle.

Methodology

References:
- Belleng VDM Pty Ltd (2006)
- WAPC (2005)

GIS databases:
- DEC Managed Lands and Waters - CALM 1/07/05
- Register of National Estate - EA 28/01/03
- System 6 Conservation Reserves - DEP 06/95
- Town Planning Scheme Zones - MFP 8/98

(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

Tributaries of Toodyay Brook (a minor non-perennial watercourse) flow from west to east within Lot 9002 and Lot 405, adjacent to three areas under application and through five areas under application. There is a high salinity risk with these areas associated with watercourses and a low salinity risk for the other area under application.

In addition, the clearing as proposed may result in an increase in surface water runoff, given the gravel in the surface horizons and the associated water erosion risk, leading to increase sedimentation of the adjacent tributaries and Toodyay Brook.

The areas under application are not located in a Public Drinking Water Source Area and are positioned mid-slope in the landscape within the Toodyay Brook sub-catchment.

Given the clearing as proposed is for thinning of vegetation only, rather the complete clearing of the native vegetation within the nine areas under application, the clearing as proposed is considered unlikely to cause deterioration in the quality of the surface or ground water.

Methodology

GIS Databases:
- Hydrography, linear - DOE 01/02/04
- Public Drinking Water Source Areas (PDWSAs) - DOW
- Salinity Risk LM 25m - DOLA 00
- Soils, Statewide - DA 11/99
- Topographic Contours, Statewide - DOLA 12/09/02

(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

Tributaries of Toodyay Brook (a minor non-perennial watercourse) flow from west to east within Lot 9002 and Lot 405, adjacent to three areas under application and through five areas under application. Given the clearing as proposed is for thinning of vegetation only, rather the complete clearing of the native vegetation within the nine areas under application, the clearing as proposed is considered unlikely to cause or increase the incidence or intensity of localised flooding.

Methodology

GIS Database:
- Hydrography, linear - DOE 01/02/04

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

Comments

The areas under application are within the Proclaimed Surface Water Area of Avon River Catchment.

Therefore any abstraction of surface water above the riparian rights (>1,500kL) would require a licence. However, this application is for hazard reduction or fire control and therefore is not associated with surface water abstraction.

There is no other RIWI Act Licence, Works Approval or EPA Act Licence that affects the areas under application.

The areas under application are within a subdivision approved by the Westralian Australian Planning Commission (TRIM Ref ED1609). Shire of Toodyay approval of the Bushfire Management Plan (Condition (7) of WAPC subdivision approval) was received by the Department on 23/01/2007 (TRIM Ref ED1523); however, a clearing permit is required as stated in the Bushfire Management Plan dated 01 December 2006.

Lot 405 and Lot 9002 are both zoned Special Rural.

Methodology GIS databases:
- RIWI Act, Groundwater Areas - WRC 13/06/00
- RIWI Act, Surface Water Areas - WRC 18/10/02
- Town Planning Scheme Zones - MFP 8/98

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Hazard reduction or fire control	Mechanical Removal	5.1	The assessable criteria have been addressed and the clearing as proposed is not likely to be at variance to the Principles.

5. References

Belleng VDM Pty Ltd (2006) Flora Assessment and Environmental Management Plan - Proposed rural residential development Lot 405 & Lot 9002 White Gum Ridge, Forest Ridge Estate and Figure 1.3 Ecological Map, Toodyay, Issue No 2: 5 July 2006, Belleng VDM Pty Ltd, Burswood, Western Australia. TRIM Ref DOC18025 and DOC41170

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

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.

Heddle, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

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.

JANIS Forests Criteria (1997) Nationally agreed criteria for the establishment of a comprehensive, Adequate and Representative reserve System for Forests in Australia. A report by the Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee. Regional Forests Agreement process. Commonwealth of Australia, 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 Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.

Shepherd, D.P. (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.

Site Inspection (2006) Site Inspection Report, Department of Environment and Conservation (DEC), Western Australia. TRIM Ref ED2042

WAPC (2005) Approval Subject to Condition(s) Freehold (Green Title) Subdivision: Lot 405 & Lot 9002 White Gum Ridge, Toodyay, Western Australian Planning Commission. TRIM Ref ED1609

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)