Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1503/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: **Timothy & Patricia Perawiti**

1.3. Property details

Property: LOT 4243 ON PLAN 136733 (HILL RIVER 6521)
Local Government Area: Shire Of Dandaragan
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
6.9		Mechanical Removal	Grazing & Pasture

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 1031: Mosaic: Shrublands; hakea scrub-heath / Shrublands; dryandra heath. (Hopkins et al. 2001, Shepherd et al. 2001).	The proposal includes clearing of approximately 6.9 hectares of vegetation. The Northwestern corner of the area under application is parkland cleared with a few mature trees and shrubs remaining. The vegetation in the middle and south eastern corner of the area under application consists of mainly Red gum (Marri), Coastal blackbutt and Banksia with an understorey of grasstrees, sedges, wattle and zamia palms (Site visit, DEC Officer 2006) and is best described as being in excellent condition.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the vegetation was assessed during a site visit conducted on 30 October 2006 (Site visit, DEC Officer 2006) and through the Land Clearing Proposal Advice (Biodiversity Coordination Section, DEC 2006).

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

Biodiversity Coordination Section, DEC (2006) advises that 'The native vegetation subject to be cleared is surrounded on three sides by Coomallo Nature Reserve (Class C). Several Declared Rare Flora species and many priority flora occur within the reserve. If lateritic soils are found to be present there is a possibility that DRF may occur on site. However the notified area has been partially disturbed by parkland clearing and grazing and therefore it is unlikely to be more floristically diverse than the surrounding Nature Reserve. The notified area consists of suitable habitat for many species of fauna indigenous to Western Australia however, it is unlikely that this native vegetation comprises 'significant' habitat when the native vegetation is likely to be of equal or better habitat value within the adjacent Coomallo Nature Reserve.'

This proposal is therefore unlikely to be at variance with this Principle.

Methodology

Biodiversity Coordination Section, DEC (2006)
GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00.

(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

Biodiversity Coordination Section, DEC (2006) advises that 'Given the notified area is surrounded by remnant vegetation and also consists of vegetation in 'excellent' condition (Keighery 1994)it is highly likely that the site will be utilised as fauna habitat by mammals, reptiles and birds and may include threatened and priority species. It is therefore likely that the notified area consists of suitable habitat for many species of fauna indigenous to Western Australia however, it is unlikely that this native vegetation comprises 'significant' habitat when the native vegetation is of equal or better habitat value within the adjacent Coomallo Nature Reserve.'

This proposal is therefore not likely to be at variance with this Principle.

Methodology Biodiversity Coordination Section, DEC (2006)

(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

Biodiversity Coordination Section, DEC (2006) advised that 'There are 32 records of 6 species of Declared Rare Flora (DRF) and 120 records of 48 species of Priority flora occurring within a 10 km radius. According to WA Herbarium records, five of the six species occur within 3 km of the notified area and all occur on the same Beard Vegetation Association 1034. The brief descriptions given indicate that each of these DRF species may occur on lateritic soils. If lateritic soils are present then there is a possibility that DRF may occur on site. Given the high number of Priority flora records in the area, the majority also on the same Beard Vegetation type, it is also possible that Priority flora is present within the notified area. In order to determine conclusively whether DRF is at this location a flora survey at the appropriate time of year should be considered, provided the identified soil type is present.'

DAFWA (2006) advised that 'The surface geology is described as ferruginous laterite and leached quartz sand associated with laterite. Along the Hill River is alluvium comprised of sand, silt and clay. Soils where clearing is planned, are mainly pale deep sands, ie. grey topsoil over pale yellow subsoil.'

DEC (2007) confirmed that 'the absence of laterite in the soil would greatly decrease the likelihood of encountering Eucalyptus lateritica, E. leprophloia, E. suberea, Hakea megalosperma and Thelymitra stellata. However the Sandplain Duck Orchid (Parcaleana dixonii) is not dependent on laterite in the soil profile to persist.' Further DEC (2007) advice confirmed that 'the Sandplain Duck Orchid prefers shallow sands but has been known to occur on deeper sands. However, given the previous and current grazing pressure it is unlikely to occur within the area under application.'

Therefore this proposal is unlikely to be at variance with this Principle.

Methodology

Biodiversity Coordination Section, DEC (2006)
DAFWA (2006)
DEC (2007)
GIS Databases:
- Declared Rare and Priority Flora list - CALM 01/07/05
- Clearing Regulations - Environmentally Sensitive Areas - DoE 30/05/05

(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

Biodiversity Coordination Section (2006) advises that 'There are no known records of Threatened Ecological Communities (TEC) within the area subject to be cleared, or within a 10km buffer around the site. The nearest known TEC, the State listed Lesueur Coomallo Community D1, is located approximately 13 km north-west of the clearing application area. The Lesueur floristic communities are a large number of distinct, species rich and geographically restricted communities in the Mt Lesueur and Coomallo area. Based on the distance between the proposal and the TEC, the proposed clearing is not likely to impact the values of the TEC.'

With consideration to the above, this proposal is not likely to be at variance to this principle.

Methodology

Biodiversity Coordination Section, DEC (2006)
GIS Databases:
- Threatened Ecological Communities - CALM 12/04/05

(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 vegetation under application consists of Beard Vegetation Association 1031 (Hopkins et al. 2001) of which there is 34.9% of the pre-European extent remaining (Shepherd et al. 2001). This vegetation type is therefore of a 'depleted' status for biodiversity conservation (Department of Natural Resources and Environment 2002). The vegetation under application also falls within the Geraldton Sandplains Bioregion and the Shire of Dandaragan of which there is 42.2% and 48.8% of pre-European extent remaining respectively.

The area under application falls within the Intensive Landuse Zone as described under EPA Position Statement No2 which does not support further clearing for agricultural purposes. A condition has been imposed to fence off an area adjacent to the proposed clearing which has a higher level of biodiversity.

On the basis that the pre-European extent of the Beard Vegetation Association, Geraldton Sandplains Bioregion and the Shire of Dandaragan meets the National Objectives Targets for Biodiversity Conservation 2001-2005, being 30% of that present pre-1750 and that the proponent will fence off an area of approximately 2.1 hectares of native vegetation, this proposal maybe at variance to this Principle.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation status**	Reserves/CALM-managed land, %
IBRA Bioregion - Geraldton Sandplains***	3,136,277	1,324,440	42.2	Depleted	35.6
Shire - Dandaragan***	668,507	326,283	48.8	Depleted	Not available
Beard veg type - 1031	269,505	93,975	34.9	Depleted	38.5

* (Shepherd et al. 2001)
** (Department of Natural Resources and Environment 2002)
*** Area within the Intensive Landuse Zone

Methodology

GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Pre-European Vegetation - DA 01/01
- Local Government Authorities - DLI 08/07/04
- EPA Position Paper No 2 Agriculture Region - DEP 12/00

Shepherd et al, 2001.
Department of Natural Resources and Environment, 2002

(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 at variance to this Principle

No watercourse or wetland is present within the area under application. The closest is the Hill River located approximately 650 m south of the notified area.

This proposal is therefore not at variance with this Principle.

Methodology

GIS Databases:
- Hydrography, linear - DoE 01/02/04
- Hydrographic Catchments - Catchments - DoE 23/03/05

(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

DAFWA (2006) advised that 'The assessment identified the potential for land degradation in the form of wind erosion, salinity and eutrophication. However, in view of the small scale clearing, position in the landscape and setback from the river it is unlikely that the clearing will cause appreciable land degradation. Therefore the proposed clearing of 6.9 hectares is unlikely to be at variance for Principle (g) for wind erosion, salinity and eutrophication.'

Methodology

DAFWA (2006)
GIS Databases:
- Rainfall, Mean Annual - BOM 30/09/01
- Salinity Risk LM 25m - DOLA 00
- Acid Sulphate Soil risk map, SCP DOE 04/11/04

- Soils, Statewide - DA 11/99

(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 Coomallo Nature Reserve lies adjacent to the area under application. In addition the Hill River Nature Reserve lies approximately 600 m south of the notified area.

Biodiversity Coordination Section, DEC (2006) advises that 'The Hill River may be impacted by increased silt loading at the time of clearing however the proponent intends to ýclear ground cover within the block, all tress in clumps or stands to be left for shade for stock and horsesý (from information supplied submitted with clearing application form). This should lessen erosion to a degree. Aerial photography shows a considerable area of remnant vegetation on the proponentýs property between the notified area and the Hill River which should act as a buffer protecting the river from significant silt loading. Remnant vegetation on the proponentýs property between the notified area and the Hill River Nature Reserve should act as a buffer protecting the Hill River from significant silt loading due to clearing. This proposal is not likely to be at variance to this Principle.'

This proposal is therefore not likely to be at variance with this Principle.

Methodology

Biodiversity Coordination Section, DEC (2006)
GIS Databases:
- CALM Regional Parks - CALM 12/04/02
- CALM Managed Lands & Waters - CALM 01/07/05
- Proposed National Parks FMP-CALM 19/03/03
- 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

DAFWA (2006) advise that 'There is likely to be some increase in rainfall infiltration with the planned clearing and hence recharge to lower lying land in the south. However, this would be low given that the clearing would be approximately 4.1 ha taking into consideration those areas that area already cleared apart from the scattered trees and shrubs. If the landholders establish tagasaste on the sandy soil types there will be increased water use on the higher ground.'

This proposal is therefore unlikely to cause deterioration in the quality of surface or underground water.

Methodology

DAFWA (2006)
GIS Databases:
- Public Drinking Water Sources (PDWSAs) - DOE 09/08/05
- Hydrographic Catchments - Catchments - DOE 23/03/05
- Hydrography, linear - DoE 01/02/04
- Rainfall, Mean Annual - BOM 30/09/01

(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

DAFWA (2006) advise that 'On the elevated area where clearing is proposed, there are no major existing degradation issues. A potential hazard exists on the flatter low lying land along the Hill River where flooding and water logging can occur. There is likely to be some increase in rainfall infiltration with the planned clearing and hence recharge to lower lying land to the south. However, this would be low given that the clearing would be approximately 4.1 ha taking into consideration those areas that are already cleared apart from the scattered trees and shrubs.'

This proposal is therefore unlikely to be at variance with this Principle.

Methodology

DAFWA (2006)
GIS Databases:
- Rainfall, Mean Annual - BOM 30/09/01
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The Shire of Dandaragan has not indicated if there are any planning requirements or approvals that would affect the clearing.

There is no further requirement for a RIWI Act Licence, Works Approval or EP Act Licence for the area under application.

The area under application falls within the Intensive Landuse Zone as described under EPA Position Statement No2 which does not support further clearing for agricultural purposes. The proposed clearing of 6.9 ha falls within 4.2 of the statement ie the area is relatively small. There assessment found that there were no land degradation issues or significant biodiversity issues. Conditions have been imposed to fence off and retain an area of native vegetation on the property which has a higher level of biodiversity.

There are two Environmental Impact Assessments (EIA's) over the area under application. One EIA refers to an amendment to the Shire of Dandaragan Town Planning Scheme and was not assessed. This EIA was closed on 13 August 1999. The second EIA refers to a natural gas power station located in Looma within the Shire of Derby - West Kimberley. This EIA is still currently being assessed and further information has been requested. This EIA does not affect the area under application as the natural gas power station is located in Looma within the Shire of Derby - West Kimberley.

The property under application is freehold land and therefore Native Title has been extinguished.

Methodology

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Grazing & Pasture	Mechanical Removal	6.9	The assessable criteria have been addressed and no objections were raised. The proponent wishes to fence off and retain an area of native vegetation on the property representative of outstanding biodiversity. A condition will be placed on the permit requiring the applicant to fence off and restrict stock access to this area. In addition the proponent only wishes to clear groundcover within the area under application, with all trees in clumps or stands to be left for shade for stock.

5. References

Biodiversity Coordination Section, DEC (2006) Land clearing proposal advice (Specific Biodiversity advice). Department of Environment and Conservation, Western Australia. DEC TRIM ref DOC11389.

DAFWA (2006) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DEC TRIM Ref DOC9452.

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.

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.

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 Visit Report (2006) Department of Environment and Conservation (DEC), Western Australia. DEC TRIM ref DOC9654.

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)