Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1817/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Carnarvon

1.3. Property details

Property: LOT 347 ON PLAN 91266 (MACLEOD 6701)
LOT 383 ON PLAN 216430 (MACLEOD 6701)
LOT 382 ON PLAN 216430 (MACLEOD 6701)
LOT 381 ON PLAN 216430 (MACLEOD 6701)
GASCOYNE LOCATION 363 (MACLEOD 6701)
Local Government Area: Shire Of Carnarvon
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
3.1		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 329: Shrublands; dwarf waterwood (Acacia coriacea) shrubs on recent dunes (Hopkins et al. 2001, Shepherd et al. 2001).	The area under application is located near the coast (approximately 400m) (Aerial photography). The local area appears to contain sandplains with reticulate dunes and saline interdunal plains supporting saltbush, and tall and low acacia shrublands dominated by Calytrix sp and Acacia coriacea (Payne et al. 1987). The coastal dune shrubs such as Acacia coriacea are highly susceptible to wind erosion on the coast land system where numerous large blowouts occur (Payne et al. 1987), suggesting that the vegetation remaining in the area under application is likely to be in a 'degraded' condition (Keighery 1994).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The description and condition of the vegetation under application were inferred from Payne et al. (1987).

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 area under application consists of Crown Reserves located near the coast (approximately 400m). The proposal area appears to contain sandplains with reticulate dunes and saline interdunal plains supporting saltbush, and tall and low acacia shrublands dominated by Calytrix sp and Acacia coriacea (Payne et al. 1987). The coastal land system in the local area is known to contain large numerous blowouts suggesting that the vegetation remaining in the area under application is likely to be in a 'degraded' condition (Keighery 1994; Payne et al. 1987).

Considering the low level of species and ecosystem diversity, and the probable fragmentation and degradation caused to the vegetation by blowouts, it is unlikely that the area under application is representative of an area of outstanding biodiversity.

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

Methodology GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00.
Keighery 1994
Payne et al. 1987

(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 no known occurrences of Threatened or Priority Fauna species within a radius of 10km. The area under application is located near the coast (approximately 400m) and known to contain sandplains with reticulate dunes and saline interdunal plains supporting saltbush, and tall and low acacia shrublands dominated by Calytrix sp and Acacia coriacea (Payne et al. 1987). The coastal land system in the local area is known to contain large numerous blowouts suggesting that the vegetation remaining in the area under application is likely to be in a 'degraded' condition (Keighery 1994; Payne et al. 1987).

Given the level of possible disturbance from sand blowouts and limited species and ecosystem diversity, it is unlikely that the area under application is representative of a significant habitat for fauna.

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

Methodology GIS Databases:
- Threatened Fauna - CALM 30/09/05
Keighery 1994
Payne et al. 1987

(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 no known records of Declared Rare Flora (DRF) within a radius of 10km. The area under application is located near the coast (approximately 400m) and known to support saltbush, and tall and low acacia shrublands dominated by Calytrix sp and Acacia coriacea (Payne et al. 1987). The coastal land system in the local area is known to contain large numerous blowouts suggesting that the vegetation remaining in the area under application is likely to be in a 'degraded' condition (Keighery 1994; Payne et al. 1987).

Considering the level of disturbance from possible sand blowouts it is unlikely that the strip of proposed clearing is necessary for the existence of rare flora.

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

Methodology GIS Databases:
- Declared Rare and Priority Flora list - CALM 01/07/05
- Clearing Regulations - Environmentally Sensitive Areas - DoE 30/05/05
Keighery 1994
Payne et al. 1987

(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 records of Threatened Ecological Communities (TECs) within a radius of 10km. Therefore it is unlikely that the proposed clearing is at variance with this Principle.

Methodology 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 is not at variance to this Principle**

Pre-European	Current area (ha)	Remaining extent (ha)	Conservation %*	Reserves/CALM-status**	
					managed land,

	%				
IBRA Bioregion - Carnarvon					
	8,382,974	8,369,554	99.8	Least concern	11.4
Shire - Carnarvon	Not available	Not available	Not available	Not available	Not available
Beard veg type - 329	27,386	26,345	96.2	Least concern	0.0

* (Shepherd et al. 2001; Shepherd 2006)
** (Department of Natural Resources and Environment 2002)

The vegetation under application is a component of Beard Vegetation Association 329 (Hopkins et al. 2001) of which there is 96.2% of the pre-European extent remaining (Shepherd et al. 2001). Beard Vegetation Association 329 and Carnarvon Bioregion are of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment 2002). The vegetation under application is within the Shire of Carnarvon for which data is not available for pre-European extent remaining.

The area under application does not fall within the Intensive Landuse Zone and therefore EPA Position Statement No 2 does not apply.

The Beard Vegetation Association 329 and Carnarvon IBRA Bioregion are represented by levels that are higher than the threshold level of 30% of the pre-European extent, as set out by the National Objectives Targets for Biodiversity Conservation 2001-2005 (AGPS 2001). Therefore, this proposal is not at variance to this principle.

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

AGPS 2001
Department of Natural Resources and Environment, 2002
Shepherd (2006)
Shepherd et al, 2001.
Payne et al. 1987

(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

The area under application falls within 400m from the coastline. There are no watercourses or wetlands within 10km of the area under application.

Therefore this proposal is 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 may be at variance to this Principle

The area under application is located near the coast (approximately 400m) and known to contain coastal calcareous sands. The mean annual rainfall in the region is 260mm. There is no data available for salinity risk.

Considering the low rainfall in the region and the occurrence of highly permeable sandy soils, the proposed clearing is not likely to cause significant water erosion, increased runoff and flooding, or land salinisation.

The prevailing conditions such as the presence of sandy soils and the close proximity of the proposal area to the windy coastline may exacerbate wind erosion after clearing has taken place. Furthermore, after the abandonment, the pre-existing road surface may be subjected to water erosion as its surface would be compact and less permeable to water.

Therefore this proposal may be at variance with this Principle.

In order to reduce the impact of wind and water erosion, conditions will be placed on the Permit requiring the applicant to rehabilitate affected road sides and pre-existing road surfaces by laying the vegetative material and topsoil removed during clearing.

Methodology GIS Databases:
- Rainfall, Mean Annual - BOM 30/09/01

- 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

A Conservation Commission (WA) Reserve is situated approximately 740m east-northeast of the proposal area. However, the proposed clearing is not likely to have any impact as it is a linear strip of vegetation in a degraded state (Payne et al. 1987) and situated well away from the Reserve. Registered National Estates such as the Dugong Butchering Site and Lake Macleod Area are situated within a radius of 10km. However, the Lake Macleod Area is situated far from the proposal area (approximately 10km east) and therefore clearing is unlikely to cause any impact on the lake system. Similarly, the Dugong Butchering Site is situated approximately 3.5km away from the proposal area and therefore clearing is unlikely to have any impact on the Butchering Site.

There are no other Nature Reserves, Proposed National Parks or other Conservation Areas within 10km of the area under application.

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

Methodology

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

Payne et al. 1987

(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 area under application is situated within the Coastal hydrographic catchment. The mean annual rainfall in the region is 260mm and the proposal area is known to contain coastal calcareous sands. There are no Public Drinking Water Source Areas (PDWSAs) in the proposal area. The proposal area does not contain water courses or surface water expressions of groundwater. Groundwater depth or quality could not be established from available data; however the close proximity of the proposal area to the coast (approximately 400m) suggests that the quality of the underground water in the local area is saline.

Considering the close proximity of the proposal area to the coast, clearing of vegetation is not likely to deteriorate the quality of underground water any further as it is expected to be already saline. In addition the area under application consists of a small (3.1ha) linear strip of vegetation with a low average rainfall (260mm) and therefore unlikely to cause a substantial watertable rise in the local area.

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

Methodology

GIS Databases:
- Current WIN data sets
- 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

The proposal area is known to contain coastal calcareous sands. The mean annual rainfall in the region is 260mm. The depth to groundwater could not be determined from available data.

Due to the relatively low average annual rainfall in the region (260mm) and presence of permeable sandy soils, the proposed clearing is unlikely to cause flooding.

Methodology

GIS Databases:
- Soils, Statewide - DA 11/99
- Rainfall, Mean Annual - BOM 30/09/01

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

Comments

Shire of Carnarvon (2007) advised that 'No objection is raised to the application as it is to facilitate a realignment of the existing access road into Shire reserves 37457, 37458, 37459 and 39666, which together,

are locally known as the 'Blowholes Reserve'. The current alignment is dangerous and unsafe in parts to vehicular traffic. Upon construction of the proposed realignment, this road will be closed as a vehicle thoroughfare, except for access to a future planned car park at its present southern termination, as proposed by the draft 'Blowholes Master Plan' (currently being finalised). The draft 'Blowholes Master Plan' is a desired outcome of the Ningaloo Coast Regional Strategy (NCRS), which I understand already has received approval pursuant to the Environmental Protection Act 1986'.

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

There is a Native Title Claim over the area under application. The advertisement of the application in the West Australian newspaper by the Department of Environment and Conservation constitutes legal notification of the native title representative body for the purpose of the future act procedures under the Native Title Act 1993. No response was received from the representative body.

The area under application is covered by an Environmental Impact Assessment (EIA) (CRN145179). This is the Shire of Carnarvon TPS 10 and DZS 11 Scheme Review. The Scheme has been given a Level of Assessment of 17 - Scheme Assessed - Environmental Review (no appeals). The Level of Assessment has been set on 29 September 1999. The purpose of the proposed clearing is consistent with the types of landuses designated for the area and therefore this EIA is not likely to have any impact on the clearing proposal.

There are no Aboriginal Sites of significance within the proposal area.

Methodology GIS Databases:
- Aboriginal Sites of Significance - DIA 28/02/03
- Environmental Impact Assessments - DOE 24/02/06
- Native Title Claims - DLI 17/11/05

Shire of Carnarvon Submission 2007

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Road construction o maintenance	Mechanical Removal	3.1	The assessable criteria have been addressed and the proposal may be at variance to Principle g. In order to reduce the impact of wind and water erosion, conditions will be placed on the Permit requiring the applicant to rehabilitate affected road sides and pre-existing road surfaces by laying the vegetative material and topsoil removed during clearing.

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.

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.

Payne, A. L., Curry, P. J. and Spencer G. F. (1987) An inventory and condition survey of rangelands in the Carnarvon Basin, Western Australia. Technical Bulletin No 73, Western Australian Department of Agriculture.

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.

Shire of Carnarvon Submission (2007) DEC TRIM Ref DOC31926

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)