Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1580/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Water Corporation

1.3. Property details

Property: LOT 9 on Diagram 31097 (Lot No. 9 Cockburn Road MUNSTER 6166)

Local Government Area: City Of Cockburn

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1		Mechanical Removal	Infrastructure, Fenceline and Track 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
Heddle Vegetation Complex: Cottesloe Complex - Central and South - Mosaic of woodland of *E. gomphocephala* and open forest of *E. gomphocephala* - *E. marginata* - *E. calophylla*; closed heath on the Limestone outcrops. Beard Vegetation Association 998: Medium woodland; tuart	The proposal includes the clearing of 1 hectares of native vegetation for the purposes of fenceline maintenance, fire breaks for vehicle maintenance. The areas under application comprise vegetation adjacent to security fences and also to create an additional firebreak in the northwest corner due to the rough terrain on the existing firebreak. The vegetation under application primarily comprises regrowth of *Acacia rostellifera* and *A. saligna* with no understorey. A limestone ridge was observed with *Melaleuca systena* and *M. acerosa* however clearing is not required in this area.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation clearing description based on a site visit conducted by DEC officers on Tuesday 28 November 2006. Vegetation under application is degraded to completely degraded.

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 primarily comprises *Acacia rostellifera* and *A. saligna* regrowth with no understorey present, and is contained within 1ha over a total of 2km of fence lines and firebreaks. Given the low species diversity, and the limited size and habitat potential of the vegetation, it is not considered likely to comprise a high level of biodiversity.

Methodology DEC site visit 28/11/06

(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 vegetation under application comprises 1ha over a total of 2km of fencelines and firebreaks and is in a degraded to completely degraded condition, with no understorey present.

Given the lack of understorey and the vegetation being restricted to areas adjacent to fence lines and along firebreaks, the vegetation under application would not be considered significant habitat for indigenous fauna.

Methodology DEC site visit 28/11/06

(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

Within the local area (5km radius of the application) there are no known occurrences of Declared Rare Flora, however there are three known occurrences of Priority listed flora.

Given that there are no known occurrences of DRF in the local area, and that the vegetation under application is in a degraded to completely degraded condition, it is not considered likely to include, or be necessary for the continued existence of, rare flora.

Methodology

DEC site visit 27/11/06
GIS Databases:
Declared Rare and Priority Flora List - CALM 01/07/05

(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

There are four known occurrences of Threatened Ecological Communities (TEC) in the local area, all of which are located approximately 760m to the west of the applied area, at Woodman Point. The applied area is located within the buffer for these TECs.

During the site visit a limestone ridge was observed with *Melaleuca systena* and *M. acerosa*, which are indicator species of the TEC 26a (Government of Western Australia 2000), however clearing is not required in the area observed and it is not likely to be impacted by the proposed clearing.

The Biodiversity Coordination Section (2006) advise that the nearest TEC at Woodman Point is not likely to be found in the applied area or be impacted by the proposed clearing. It is therefore not considered likely that the vegetation under application comprises, or is necessary for the maintenance of, a TEC.

Methodology

BCS (2006)
DEC site visit 28/11/06
Government of Western Australia (2000)
GIS Database: Threatened Ecological Communities - CALM 12/4/05

(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 likely to be at variance to this Principle

The vegetation under application is identified by Heddle et al. (1980) as 'Cottesloe Complex - central and south' of which there is 41.1% of pre-European vegetation remaining, and which is considered to be depleted (Department of Natural Resources and Environment 2002).

The vegetation under application is also part of Beard vegetation association 998 of which there is 35.9% remaining (Shepherd et al. 2002), and which is also considered to be depleted (Department of Natural Resources and Environment 2002).

The vegetation complexes identified within the area under application have above the minimum 30% of pre-European representation target set in the National Objectives Targets for Biodiversity Conservation, and the vegetation under application is in a degraded to completely degraded condition. The applied vegetation is therefore not considered likely to be a significant remnant of vegetation in an area that has been extensively cleared.

	Pre-European area (ha)	Current extent (ha)	Remaining %
	Conservation status***	% in reserves/DEC- managed land	
Swan Coastal Plain	1,529,235	657,450	43.0*

Heddle vegetation complex

Cottesloe Complex	44,995	18,474	41.1**	Depleted	8.8
Beard vegetation associations 998	51,094	18,320	35.9*	Depleted	3.0

* (Shepherd et al. 2001)
**(EPA, 2003)
***(Department of Natural Resources and Environment 2002)

Methodology DEC site visit 28/11/06
Department of Natural Resources and Environment (2002)
Shepherd et al. (2001)
GIS Databases:
Heddle Vegetation Complexes - DEP 21/06/95
Pre-European Vegetation - DA 01/01

(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**
Lake Coogee is located approximately 120m to the east of the eastern boundary of Lot 9. Lake Coogee is classified as a Conservation Category Wetland (CCW), which support a high level of ecological attributes and functions and have the highest priority for management (Water and Rivers Commission 2001). The coastal waterline is also located approximately 190m to the west of the western boundary.

Given the distance to the nearest wetland, and that no wetland dependent vegetation was observed during the site visit, the applied vegetation is not considered likely to be growing in, or in association with, an environment associated with a watercourse or wetland.

Methodology DEC Site visit 28/11/06
Water and Rivers Commission (2001)
GIS Databases:
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
Hydrography, linear (hierarchy) - DOW

(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**
Soils within the applied area are identified as 'siliceous sands with smaller areas of brown sands and leached sands in the wetter sites' (Western Australia Department of Agriculture 2004) and there is a nil risk of salinity and acid sulphate soils. This soil type is associated with a high risk of wind erosion, especially with the removal of vegetation.

Although the soils identified on site have a high risk of wind erosion, given the limited width of clearing over a total of 2km of fence lines and firebreaks the proposal is not considered likely to result in appreciable land degradation.

Methodology Western Australia Department of Agriculture (2004)
GIS Database:
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**
There is a Bush Forever site and Nature Reserve located approximately 35m to the west of the western boundary of Lot 9. Another Bush Forever site at Lake Coogee, which is also a Conservation Category Wetland, is located approximately 120m to the east of the eastern boundary of Lot 9. There are also a number of other Conservation Reserves in the local area.

The area under application is located within the buffer for the TEC located within the Woodman Point Nature Reserve, however BCS (2006) advise that the proposed clearing along fence lines and firebreaks is not likely to impact this TEC. Given this linear nature of the applied areas and the lack of understorey, the proposal is also not considered likely to impact any faunal linkages.

Given that the proposed clearing is 1ha over a total 2km length and includes vegetation in a degraded to completely degraded condition, it is not considered likely that it would impact the environmental values of any nearby conservation reserve.

Methodology BCS (2006)

DEC site visit 28/11/06
GIS Databases:
Bushforever - MFP 07/01
CALM Managed Lands and Waters - CALM 1/07/05
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain

(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

Lot 9 is located approximately 120m from Lake Coogee, at an elevation of 10 - 35 metres with minimal slope. The applied area is not located within a Public Drinking Water Source Area (PDWSA) and groundwater salinity is 500-1000 mg/L. The applied area has a nil risk of Acid Sulphate Soils.

Given the above information and that the applied vegetation is 1ha over a total of 2km of fence lines and firebreaks, it is not considered likely that it's removal would cause deterioration in the quality of surface or underground water.

Methodology

DEC site visit 28/11/06
GIS Databases:
Acid Sulfate Soil Risk Map, SCP - DOE 04/11/04
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
Groundwater Salinity, Statewide - 22/02/00
Public Drinking Water Source Areas (PDWSAs) - DOE 07/02/06

(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

Lot 9 is located approximately 120m from Lake Coogee, at an elevation of 10 - 35 metres. The area under application is located on sandy soils with a high permeability and given the limited area of clearing it is not considered likely that the proposal would have an impact on peak flood height or duration.

Methodology

GIS Databases:
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
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 proposal is not part of a Native Title Claim.

No other approvals are required by the Department of Environment and Conservation or the Department of Water.

Methodology

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Fence Line Maintenance	Mechanical Removal	0.25	**Grant**	The assessable criteria have been addressed and the proposal was not at variance to any of the clearing principles. The assessing officer therefore recommends that the permit be granted.
Fence Line Maintenance	Mechanical Removal	0.2	**Grant**	Grantfor fence line maintenance and access track.
Infrastructure Maintenance	Mechanical Removal	0.4	**Grant**	Grant for the purpose of infrastructure maintenance, access tracks and fence line maintenance.
Road construction or maintenance	Mechanical Removal	0.1	**Grant**	Grant for access track and firebreak maintenance
Road construction or maintenance	Mechanical Removal	0.05	**Grant**	Grant for new access track

5. References

Clearing Assessment Unit's biodiversity advice for land clearing application. Advice to Director General, Department of Environment and Conservation (DEC), Western Australia. TRIM ref DOC12129.

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 (2003) Guidance for the Assessment of Environmental Factors -level of assessment of proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region. Report by the EPA under the Environmental Protection Act 1986. No 10 WA.

Government of Western Australia (2000) Bush Forever Volumes 1 and 2. Western Australian Planning Commission, Perth WA.

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.

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 28/11/2006, Department of Environment and Conservation (DEC), Western Australia. TRIM ref DOC10810.

Western Australia Department of Agriculture, 2004, Soil-landscape mapping, Western Australia Department of Agriculture, Date accessed 01/05/04

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)