Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1568/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Laurence Daniel & Pamela June Harris

1.3. Property details

Property: LOT 3 ON DIAGRAM 18099 (House No. 677 BOYANUP-PICTON CROOKED BROOK 6236)
LOT 1 ON DIAGRAM 14798 (House No. 767 BOYANUP-PICTON CROOKED BROOK 6236)
LOT 4 ON DIAGRAM 18099 (CROOKED BROOK 6236)

Local Government Area: Shire Of Dardanup

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
5.6		Mechanical Removal	Extractive Industry

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 1000: Mosaic: Medium forest; jarrah-marri / Low woodland; banksia / Low forest; teatree (Melaleuca Spp.) Heddle Vegetation Complex - Southern River Complex No.42 Open woodland of E. calophylla - E. marginata - Banksia species with fringing woodland of E. rudis - M. rhaphiophylla along creek beds. (Heddle et al. 1980).	The vegetation within the area consists of an overstorey of Jarrah, WA Peppermint, Banksia attenuata, and Woody Pear, with an understorey consisting mainly of introduced pasture grasses and annual weeds (DEC, 2007).	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The application area has been highly modified due to historical grazing (DEC, 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 area under application is in a completely degraded condition (Keighery, 1994) and consists of an overstorey of Jarrah, WA Peppermint, Banksia attenuata, and Woody Pear, with an understorey consisting mainly of introduced pasture grasses and annual weeds. The application area has been highly modified due to historical grazing (DEC, 2007).

Given the above it is unlikely the area under application comprises a high level of biodiversity.

Methodology

Keighery (1994)
DEC (2007)
GIS Database:
-Bunbury 1m Orthomosaic - DOLA 11/00

(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

The area under application is in a completely degraded condition (Keighery, 1994) and consists of an overstorey of Jarrah, WA Peppermint, Banksia attenuata, and Woody Pear, with an understorey consisting mainly of introduced pasture grasses and annual weeds. The application area has been highly modified due to historical grazing (DEC, 2007).

There are 2 records of 1 'Endangered', 8 occurences of 2 'Vulnerable' and 6 records of 3 'Priority' fauna species within the 10km local area. The closest record, Brush-tailed Phascogale, Phascogale tapoatafa tapotafa, is approximately 4.4km north west of the application area (SAC Bio Datasets, 300507).

Aerial photography shows that there are areas of remnant native vegetation remaining within the 10km local area and appear to be in similar or better condition than the application area. Therefore, the fauna species listed above are likely to find habitat of equal or better condition within nearby remnants.

The application area provides a connective corridor value linking adjacent remnant vegetation to the north and west of the proposed clearing. Aerial photography indicates that the remnant vegetation to the east of the application has been extensively cleared and even thought the application is highly degraded, it may provided an ecological linkage.

Given the vegetation under application is completely degraded, and the surrounding vegetation, the proposed clearing is not likely to be significant habitat for the local area.

Methodology

Keighery (1994)
DEC (2007)
SAC Bio Datasets (300507)
GIS Database:
-Bunbury 1m Orthomosaic - DOLA 11/00

(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

The area under application is in a completely degraded condition (Keighery, 1994) and consists of an overstorey of Jarrah, WA Peppermint, Banksia attenuata, and Woody Pear, with an understorey consisting mainly of introduced pasture grasses and annual weeds. The application area has been highly modified due to historical grazing (DEC, 2007).

There are 10 records of 4 Declared Rare taxa and 114 records of 16 Priority flora species occurring in the 10km local area (SAC Bio Datasets 300507). The closest records (Eleocharis keigheryi - Rare and Eucalyptus x mundijongensis - Priority 1) are approximately 1.4km south east of the application area (SAC Bio Datasets 300507).

Given the modified and degraded condition of the area under application it is unlikely the proposed clearing will be at variance to this principle.

Methodology

Keighery (1994)
DEC (2007)
SAC Bio Datasets (300507)

(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

The area under application is in a completely degraded condition (Keighery, 1994) and consists of an overstorey of Jarrah, WA Peppermint, Banksia attenuata, and Woody Pear, with an understorey consisting mainly of introduced pasture grasses and annual weeds. The application area has been highly modified due to historical grazing (DEC, 2007).

There are 2 occurrences of 1 Threatened Ecological Community within the 10km local area. The closest of the records, community type SCP1b (Eucalyptus calophylla woodlands on heavy soils of the southern Swan Coastal Plain), is approximately 3km west of the application (SAC Bio Datasets, 300507).

From GIS Database analysis both the community occurrences are associated with different vegetation complexes. Also, the Department of Agriculture and Food (2007) have indicated that the application area is dominated by deep bleached grey sands sometimes with a pale yellow B horizon or a weak iron-organic hardplan at depths which are not associated with the community occurrences.

Given, the modified and degraded condition and the differences in vegetation and soils it is unlikely the clearing will be at variance to this principle.

Methodology Keighery (1994)
DEC (2007)
DAFWA (2007)
SAC Bio Datasets (300507)
GIS Database:
-Soils, Statewide - DA 11/99
-Heddle Vegetation Complexes - DEP 21/06/95
-Pre-European Vegetation - DA 01/01

(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 area under application is in a completely degraded condition (Keighery, 1994) and consists of an overstorey of Jarrah, WA Peppermint, Banksia attenuata, and Woody Pear, with an understorey consisting mainly of introduced pasture grasses and annual weeds. The application area has been highly modified due to historical grazing (DEC, 2007).

The vegetation within the application is a component of the Beard No. 1000 vegetation association of which 25.7% (Shepherd et al. 2006) of the pre-European extent is remaining therefore a vulnerable status for biodiversity conservation (Department of Natural Resources and Environment, 2002).

The vegetation under application is also within the Swan Coastal Plain Bioregion and Dardanup Shire of which there is 23.9% (Shepherd et al, 2006) and 52.2% (Shepherd et al. 2001) of pre-European extent remaining respectively.

The vegetation is also associated to the Southern River complex No.42 of which there is 18.5% (Heddle et al. 2002) of pre-European extent remaining therefore a vulnerable status for biodiversity conservation (Department of Natural Resources and Environment, 2002).

Given the application area is highly modified and in a completely degraded condition it is unlikely that it represents a significant remnant of native vegetation. Therefore the application is unlikely to be at variance to this principle.

Methodology Keighery (1994)
DEC (2007)
Department of Natural Resources and Environment (2002);
Shepherd et al. (2006)
Shepherd et al (2001)
Heddle et al. (2002)
AGPS (2001)
GIS Database:
-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 at variance to this Principle

Mapping indicates that the area under application lies partially within a multiple use wetland. Under the 2001 Wetlands Position Statement a multiple use wetland is defined as a wetland with few important ecological attributes and functions remaining.

The native vegetation within the application is completely degraded (Keighery, 1994) and the species noted during a site visit were not specific to wetland habitat.

Given the application area is within a mapped wetland this proposal is at variance to this principle, however the vegetation that remains is unlikely to be providing significant functions to the wetland.

Methodology GIS Databases:
-ANCA, Wetlands - CALM 08/01
-Geomorphic Wetlands (Classification), Swan Coastal Plain - DEC
-RAMSAR, Wetlands - CALM 14/02/03
-Hydrography, linear - DOE 1/2/04

(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 proposed clearing (5.6ha) is unlikely to cause appreciable land degradation (DAFWA, 2007).

The application area was mapped as having a low Acid Sulphate Soils risk, a groundwater salinity of 1000-3000 mg/L and a low salinity risk.

Given the above, the proposal is unlikely to be at variance to this principle.

Methodology

DAFWA (2007)
GIS Databases:
-Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC
-Salinity Risk LM 25m - DOLA 00

(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

GIS Database records indicate that the closest DEC reserve to the application area is Dardanup Conservation Park approximately 3.3km east, south-east of the application area, however the application area is not linked by remnant vegetation to the conservation area.

Given the above this proposal is not likely to be at variance with this principle.

Methodology

GIS Databases:
-CALM Managed Lands and Waters - CALM 1/07/05
-Cadastre - DLI

(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 vegetation under this application is within the Leschenault Estuary-Preston River catchment.

The risk of salinity and eutrophication causing land degradation is low (DAFWA, 2007). The application area was also mapped as having a low Acid Sulphate Soils risk and a groundwater salinity of 1000-3000 mg/L.

As part of the area is mapped within a multiple use wetland it is likely that the clearing of native vegetation will cause further deterioration to the functioning capabilities of this wetland. Under the 2001 Wetlands Position Statement a multiple use wetland is defined as a wetland with few important ecological attributes and functions remaining. Given the already degraded state of the vegetation and wetland, it is unlikely that the clearing will have significant impacts on water quality.

Methodology

DAFWA (2007)
GIS Databases:
-Hydrographic Catchments - Catchments - DOW
-Hydrographic Catchments - Basins - DOW
-ANCA, Wetlands - CALM 08/01
-Geomorphic Wetlands (Classification), Swan Coastal Plain - DEC
-RAMSAR, Wetlands - CALM 14/02/03
-Hydrography, linear - DOE 1/2/04
-Groundwater Salinity, Statewide - DOW
-Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC
-Salinity Risk LM 25m - DOLA 00

(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 clearing of further vegetation from the area under this application is unlikely to significantly increase surface runoff, which would contribute to stream flows, and the risk of increased flooding causing land degradation is low (DAFWA, 2007).

Given the above, the proposal is not likely to be at variance with this principle.

Methodology

DAFWA (2007)
GIS Database:

-Topographic Contours, Statewide - DOLA 12/09/02_1
-Spot Heights

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

Comments

The property is zoned General Farming under the Shire of Dardanup Town Planning Scheme No.3 and Rural under the Greater Bunbury Region Scheme (GBRS).

As the application area is partly within a multiple use wetland it is likely that the associated land use, of sand extraction, will cause irreparable damage to any remaining functions that the areas of wetland within the application area have. Given that the area is already listed as multiple use many of these functions have already been lost, however the granting of this permit is likely to prevent any future capabilities of the wetland.

No other approvals from the Department of Environment and Conservation or Department of Water are required for this proposal.

No public submissions have been received by the Department to date for this proposal.

Methodology

GIS Databases:
-Public Drinking Water Source Areas (PDWSAs) - DOW
-RIWI Act, Groundwater Areas - DOW
-RIWI Act, Surface Water Areas - DOW
-RIWI Act, Areas - DOW
-RIWI Act, Irrigation Districts - DOW
-RIWI Act, Rivers - DOW
-WRL Properties
-Cadastre - DLI
- Town Planning Scheme Zones - MFP 8/98_1

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Extractive Industry	Mechanical Removal	5.6	The principles have been assessed and the clearing as proposed is at variance to principle (f) and is not likely to be at variance to all other principles.

5. References

AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.

DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DoE TRIM DOC20405

DEC (2007). Department of Environment and Conservation Site Visit Report, Western Australia. TRIM Ref: DOC22305.

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.

Havel, J.J. and Mattiske Consulting Pty Ltd (2002) Review of management options for poorly represented vegetation complexes, Conservation Commission.

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 (updated 2002).

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.

SAC Bio Datasets (300507). Department of Environment and Conservation SAC Bio Datasets, Kensington, 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.

Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001a) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia (updated 2006).

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)