Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1782/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Carbone Bros Pty Ltd

1.3. Property details

Property: LOT 679 ON PLAN 251576 (STRATHAM 6237)

Local Government Area: Shire Of Capel

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.2		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: -No. 6: Medium woodland of Tuart (Eucalyptus gomphocephala) and Jarrah (Eucalyptus marginata). Heddle Vegetation Complex: -Karrakatta Complex - Central and South: Predominantly open forest of Tuart (Eucalyptus gomphocephala), Jarrah (Eucalyptus marginata) and Marri (Eucalyptus calophylla) and woodlands of Eucalyptus marginata and Banksia species.	The proposal is for the extension of a sand extraction site. The extension of the sand extraction site requires 1.2ha of native vegetation to be cleared to the east of the existing sand extraction pit. DAFWA advices the remnant native vegetation proposed to be cleared is in an average to poor condition (TRIM ref DOC26197).	Degraded: Structure severely disturbed; regeneration to good condition requires Intensive management (Keighery 1994)	Condition was determined using orthomosaic mapping and DAFWA advice.

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 proposal is for clearing of 1.2ha of native vegetation for the purpose of sand extraction.

There are no records of any known threatened fauna, Declared Rare and Priority Flora and Threatened Ecological Communities within the area proposed to be cleared.

The application area has been historically modified with the condition of the vegetation within the application ranging from average to poor (DAFWA, 2007).

There are areas of remnant vegetation remaining immediately to the south and east of the application area.

Given the scale (1.2ha), the modified condition of the proposed clearing and the presence of areas of similar vegetation in better condition in close proximity to the area under application, this proposal is not likely to be at

variance to this principle

Methodology DAFWA (2007)
SAC Bio Datasets (270907)
GIS Database:
-Preston - Gelorup - Bunbury Townsite 20cm Orthomosaic - DLI04

(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 may be at variance to this Principle

There are no records of any known threatened fauna within the area proposed to be cleared.

There are 3 records of 3 'Endangered', 8 records of 5 'Priority' and 7 records of 3 'Priority' fauna species occurring within the 10km local area of the application (1.2ha). The closest record, Western Ringtail Possum, Pseudocheirus occidentalis (Vulnerable), is approximately 873m west, north-west of the application area (SAC Bio Datasets, 270907).

It is unlikely that the vegetation would be utilised as habitat for the western Ringtail Possum. It is also unlikely that the remaining species found within the 10km local area would utilise the vegetation within the application area as the application has been historically modified with the condition of the remnant vegetation ranging from poor to average (DAFWA, 2007).

The proposed clearing may result in displacement of (and some loss of) individual fauna within the application area, and place pressure on resources within adjacent bushland as refugee fauna attempt to re-establish within these areas. However this proposed clearing of 1.2 hectares is not likely to have a significant impact on the survival of any Threatened, Priority, locally significant or other indigenous fauna populations.

Aerial photography shows that there are areas of native vegetation remaining in the 10km local area that appear to be in similar condition to that of the application area. Therefore, the fauna species are likely to find habitat in equal or better condition (with fewer disturbances) within the nearby remnants.

The application area forms part of the Greater Bunbury Regional Scheme's Ecological linkages. The application is mapped as part of the East-West Ecological Linkage designed to connect areas across landforms and vegetation complexes. Naturally vegetated areas (in particular the larger relatively intact remnants) in the area of the linkages will be priorities for retention and protection (Western Australian Planning Commission, 2000).

Given the scale (1.2ha), the modified condition of the proposed clearing and the presence of extensive areas of similar vegetation in better condition in close proximity to the area under application, the 1.2 hectare area under application is not considered to be significant habitat for indigenous fauna, however as the application forms part of the Greater Bunbury Regional Schemes Ecological Linkages the proposal may to be at variance to this principle.

To mitigate any potential impacts of the clearing on Ecological Linkages, the proposed clearing will be carried out in accordance with conditions to revegetate the extraction site.

Methodology SAC Bio Datasets (270907)
DAFWA (2007)
GIS Database:
-Preston - Gelorup - Bunbury Townsite 20cm Orthomosaic - DLI04

(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 Declared Rare and Priority Flora within the area proposed to be cleared.

There are 10 records of 5 'Rare' and 24 records of 16 'Priority' flora species occurring within the 10km local area of the application (1.2ha). The closest record Caladenia huegelii (Rare), is approximately 710m south west of the application area (SAC Bio Datasets 270907).

It is unlikely that Caladenia huedelii (Rare) would be present within the application due to historical modification with the condition of the remnant vegetation ranging from poor to average (DAFWA, 2007).

A number of 'significant' flora within the 10km local area are associated with the same vegetation and soil associations as those located within the application area. Aerial photography shows that there are areas of native vegetation remaining in the 10km local area that appear to be in better or similar condition to that of the application area.

Given the scale (1.2ha), the modified condition of the proposed clearing and the presence of extensive areas of similar vegetation in better condition in close proximity to the area under application, the 1.2 hectare area under application is not considered to be significant and the proposal is therefore considered unlikely to be at variance to this principle.

Methodology SAC Bio Datasets (270907)
DAFWA (2007)
GIS Database:
-Preston - Gelorup - Bunbury Townsite 20cm Orthomosaic - DLI04

(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 Threatened Ecological Communities (TEC's) within the area proposed to be cleared.

There are 20 records of 7 Threatened Ecological Communities occurring within the 10km local area of the application (1.2ha). The closest record, community type SCP19b (woodlands over sedgelands in Holocene dune swales of the southern Swan Coastal Plain) is situated approximately 2.9km north west of the application area (SAC Bio Datasets 290907).

The application area has similar soils and vegetation associations as four of the TEC's within the 10km local area.

The application has been historically modified with the condition of remnant vegetation ranging from poor to average (DAFWA, 2007).

Given the scale (1.2ha), the modified condition of the proposed clearing, the presence of extensive areas of similar vegetation in better condition in close proximity to the area under application and that all the TEC's are associated with soil characteristics unlikely to be located within the application the 1.2 hectare area under application is not considered to be significant and the proposal is therefore considered unlikely to be at variance to this principle.

Methodology SAC Bio Datasets (290907)
DAFWA (2007)

(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 National Objective and Targets for Biodiversity Conservation 2001-2005 (AGPS, 2001) recognises that the retention of 30% or more of the pre-clearing extent of each ecological community is the target.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	Conservation** status	% In reserves DEC Managed Land
IBRA Bioregions*					
Swan Coastal Plain^	1,501,456	571,758	38.1	Depleted	N/A
Shire****					
Capel	55,869	20,059	35.9	Depleted	N/A
Mattiske Vegetation Complex***					
N/A					
Beard Vegetation Complex*					
6	56,345	15,013	26.6	Vulnerable	N/A
Heddle Vegetation Complex+					
Karrakatta - Central & South	49,935	13,331	26.7	Vulnerable	N/A

* (Shepherd et al. 2006)
** (Department of Natural Resources and Environment 2002)
*** (Mattiske Consulting 1998)
**** (Shepherd et al. 2001)
+ (Heddle et al. 2002)
^ Area within Intensive Land Use Zone

Both the Beard (26.6%) and Heddle (26.7%) vegetation complexes are below the National Objective and Targets

for Biodiversity Conservation 2001-2005 (AGPS, 2001) biodiversity target of 30%.

There are areas of remnant vegetation remaining immediately to the south and east of the application area however the remaining remnants within the 10km local area have been extensively cleared and therefore the 1.2ha of vegetation within the application area may be considered 'significant' as a remnant in a local (10km local area) context.

The application area has been historically modified with the condition of the vegetation within the application ranging from average to poor (DAFWA, 2007).

The application area also forms part of the Greater Bunbury Regional Scheme's Ecological linkages. The application is mapped as part of the East-West Ecological Linkage designed to connect areas across landforms and vegetation complexes. Naturally vegetated areas (in particular the larger relatively intact remnants) in the area of the linkages will be priorities for retention and protection (Western Australian Planning Commission, 2000).

The application area has been modified and some areas have been classified as poor however, the vegetation within the application is represented by a vegetative association that has been extensively cleared and also forms part of the Greater Bunbury Regional Schemes Ecological Linkages, therefore this proposal may be at variance to this principle.

To mitigate any potential impacts of the clearing on Ecological Linkages, the proposed clearing will be carried out in accordance with conditions to revegetate the extraction site and manage dieback and weeds.

Methodology

AGPS (2001)
Department of Natural Resources and Environment (2002)
Shepherd et al. (2006)
Shepherd et al. (2001)
Heddle et al. (2002)
DAFWA (2007)
Western Australian Planning Commission (2000)
GIS Database:
- Heddle Vegetation Complexes - DEP 21/06/95
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00
- Local Government Authorities - DLI 8/07/04
- 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
The area under application is not associated with any known watercourses or wetlands.

The closest record is a multi purpose sumpland which is approximately 265m west of the application area.

This proposal is not likely to be at variance to this principle.

Methodology

GIS Database:
-Hydrography, linear - DOE 1/2/04
-Geomorphic Wetlands (Classification), Swan Coastal Plain - DEC
-Geomorphic Wetlands (Classification), Swan Coastal Plain - DEC_1
-Geodata, Lakes - GA 28/06/02
-RAMSAR, Wetlands - CALM 14/02/03
-EPP, Wetlands 2004 (DRAFT) - DOE 21/7/04
-EPP, Lakes - DEP 1/12/92
-ANCA, Wetlands - CALM 08/01

(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 of 1.2ha of with Lot 679 On Plan 251576 is unlikely to cause appreciable land degradation (DAFWA, 2007).

The area under application has no known risk of Acid Sulphate Soils and potential Acid Sulphate Soils within 3 metres of the soil surface.

The application area is associated with areas where the groundwater salinity is mapped at 500-1000mg/L. The salinity risk is low.

The application area also has a low risk of water erosion due to the porous soil types that are very well drained (DAFWA, 2007).

The proposed clearing (1.2ha) may cause some short term land degradation issues in terms of wind erosion. However, this issue should be minimal with no significant change.

Given the above, it is not likely that this proposal will be at variance to this principle.

Methodology DAFWA (2007)
GIS Database:
-Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC
-Groundwater Salinity, Statewide - DOW
-Salinity Risk LM 25m - DOLA 00_1

(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 may be at variance to this Principle**
GIS Database records indicate that the closest DEC reserve to the application area is Tuart Forest National Park approximately 5.6km south west of the application area. The closest reserve system 6 conservation reserve vested with the Shire of Harvey is approximately 884m west of the application.

The application area forms part of the Greater Bunbury Regional Scheme's Ecological linkages. The application is mapped as part of the East-West Ecological Linkage designed to connect areas across landforms and vegetation complexes. Naturally vegetated areas (in particular the larger relatively intact remnants) in the area of the linkages will be priorities for retention and protection (Western Australian Planning Commission, 2000).

Given the scale (1.2ha), the modified condition and the distance to the closest conservation area, it is unlikely that the proposed clearing will impact on the values of any conservation area. However, as the application area contributes to an ecological linkage to conservation areas the application may be at variance to this principle.

To mitigate any potential impacts of the clearing on Ecological Linkages, the proposed clearing will be carried out in accordance with conditions to revegetate the extraction site.

Methodology Western Australian Planning Commission (2000)
GIS Database:
-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 proposed clearing is located with the Five Mile Brook catchment area.

The area under application is not within any Public Drinking Water Source Areas.

The application area is associated with areas where the groundwater salinity is mapped at 500-1000mg/L with a low salinity risk.

The area under application is not associated with any known watercourse or wetland.

The proposed clearing of (1.2ha) may cause some short term land degradation issues in terms of soil erosion during works. The issue of soil erosion should be minimal as the application is relatively small (1.2ha), occurs adjacent to remaining remnants and is associated with well drained porous soils (DAFWA, 2007), therefore it is not likely that the proposal will be at variance to this principle.

Methodology DAFWA (2007)
GIS Database:
-Hydrographic Catchments - Catchments - DOW
-Hydrographic Catchments - Basins - DOW
-Public Drinking Water Source Areas (PDWSAs) - DOW
-Groundwater Salinity, Statewide - DOW
-Salinity Risk LM 25m - DOLA 00_1

(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 area under application is not associated with any known watercourse or wetland.

The application has a low risk of water erosion due to porous soils that are very well drained (DAFWA, 2007).

The removal of native vegetation is not expected to contribute to flooding (DAFWA, 2007).

This proposal is not likely to be at variance to this principle.

Methodology

DAFWA (2007)
GIS Database:
-Hydrography, linear - DOE 1/2/04
-Geomorphic Wetlands (Classification), Swan Coastal Plain - DEC
-Hydrographic Catchments - Catchments - DOW

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

Comments

The area under application is located within the Gnaala Karla Booja Native Title Claim Area.

The application area is located within the Shire of Capel and zoned rural.

An Extractive Industry Licence (EIL) has been issued.

A submission from the Capel LCDC was received there are no objections to this proposal.

Methodology

GIS Database:
-Native Title Claims - DLI
-Town Planning Scheme Zones - MFP 08/98
-Local Government Authorities - DLI

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Extractive Industry	Mechanical Removal	1.2	The assessable criteria have been addressed and it was found that the proposal may be at variance to principles (b), (e) and (h) and not likely to be at variance to all remaining principles. If a permit is granted specific conditions will need to be included to address dieback, weeds, recording and reporting. To mitigate any potential impacts of the clearing on Ecological Linkages, the proposed clearing will be carried out in accordance with conditions addressing the loss of vegetation within the sand pit, conditions have been imposed to revegetate the extraction site.

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 ref DOC26197.

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 (updated 2002).

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 Advice (290907) Department of Environment and Conservation, 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).

Western Australian Planning Commission (2000) Greater Bunbury Regional Scheme. Western Australian Planning Commission, Perth, Western Australia.

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)