Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2655/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: **Oasis Holdings Pty Ltd**

1.3. Property details

Property: LOT 50 ON DIAGRAM 87061 (House No. 7 STANLEY LESCHENAULT 6233)
Local Government Area: Shire Of Harvey
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
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 Complex: 1000 - Mosaic: Medium forest; jarrah-marri / Low woodland; banksia / Low forest; teatree (Melaleuca spp.)	The application area contains approximately 30% open woodland in very good to excellent (Keighery, 1994) condition. The remainder of the site has been previously cleared and is in a completely degraded (Keighery, 1994) condition and contains minimal vegetative cover. The vegetation under application consists of an Open Woodland of Eucalyptus marginata over low woodland of Banksia attenuata over a tall shrubland of Kunzea ericifolia over a mixed shrubland (Outback Ecology, 2006).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Vegetation condition was assessed through aerial photography and site visits (DEC 2008 and Outback Ecology 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 at variance to this Principle

The area proposed to be cleared (2ha) for the purpose of extractive industry, contains approximately 30% open woodland in very good to excellent (Keighery, 1994) condition. The remainder of the site has been previously cleared and is in a completely degraded (Keighery, 1994) condition and contains minimal vegetative cover.

The vegetation under application consists of an Open Woodland of Eucalyptus marginata over low woodland of Banksia attenuata over a tall shrubland of Kunzea ericifolia over a mixed shrubland (Outback Ecology, 2006).

One Priority flora species, Caladenia speciosa (Priority 4) was documented within the application area (Outback Ecology, 2006).

Caladenia speciosa (Priority 4) 'is more widely spread than what appears on our databases' and based on the population size of the species within the application clearing would not significantly impact on this species

(DEC, 2007). Therefore, the protection of the identified population within the application area is considered unnecessary, given its' small size (TRIM ref DOC15916) and unlikely to be a significant loss in species population.

EPA Bulletin 1108 (2003, Appendix 10) identifies the area under application as being significant remnant vegetation requiring conservation. This vegetation is part of the McLarty/Kemerton/Twin Rivers/Preston River/Gwindinnup ecological link (EPA 2003, Appendix 4).

The application area has also been identified as a part of a core regionally significant north - south linkage recognised under the South West Regional Ecological Linkages Project (EPA 2009). The proposed clearing is likely to contribute to further degradation or disruption of these ecological linkages.

Based on the scale (up to 2.0ha) of the proposed clearing and the remaining remnants within the 10km local area, the proposal is at variance to this principle.

Methodology

EPA (2009)
Keighery (1994)
Outback Ecology (2006)
DEC (2007) - DEC TRIM Ref: DOC15916
GIS Databases:
-Pre European Vegetation - DA 01/01
-CALM Managed Lands and Waters - CALM 1/07/05
-Bunbury 50cm 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 is not likely to be at variance to this Principle

The proposed clearing is highly likely to 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 2.0 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 extensive areas of native vegetation remaining in the 10km local area, including over 2000 hectares in DEC managed land, 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.

Given the scale (up to 2.0ha) of the proposed clearing, and because of the presence of extensive areas of similar vegetation in similar condition in close proximity to the area under application, the 2.0 hectare area under application is not considered to be significant habitat for indigenous fauna and the proposal is therefore considered unlikely to be at variance to this principle.

Methodology

GIS Databases:
-CALM Managed Lands and Waters - CALM 1/06/04
-Bunbury 50cm ORTHOMOSAIC - DLI04
-SAC Bio Datasets (091008)

(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 15 known records of 5 rare flora species occurring within the 10km local area (SAC Bio Datasets 091008).

A floristic survey including the application area was conducted in September (Spring) 2006 involving 3.6 hectares of native bushland at Lot 50 Stanley Road. The area was examined by aerial photography and from this analysis seven transects were selected to be surveyed, allowing for a representation of geographical and floristic variation (Outback Ecology, 2006).

A total of 101 plant taxa were identified within the study area. No Declared Rare Flora (DRF) were recorded during the survey (Outback Ecology, 2006).

Based on the scale (up to 2.0ha) of clearing proposed, as well as the extensive areas (Ex Dir Freehold) of remnant vegetation adjoining the application to the north, it is unlikely that the proposal is at variance to this Principle.

Methodology

Outback Ecology (2006)
GIS Layer:

SAC Bio Datasets (091008)

(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 4 known occurrences of 2 threatened ecological communities (TEC's) within the 10km local area. The closest of the records, community type SCP3c (Eucalyptus calophylla - Xanthorrhoea preissii woodlands and shrub lands, Swan Coastal Plain), is approximately 9.5km south, south-east of the application area (SAC Bio Datasets 091008).

The area proposed to be cleared contains an open woodland in very good to excellent condition (Keighery, 1994). Specifically, the vegetation under application comprises open Eucalyptus marginata woodland over low Banksia attenuata woodland over a tall Kunzea ericifolia shrubland over a mixed shrubland (Outback Ecology, 2006).

From GIS Database analysis, both TEC types found within the 10km local area are associated with different soils and vegetation complexes than those found within the application area.

Given the above, it is unlikely that the proposed clearing would be at variance to this principle.

Methodology

Keighery (1994)
Outback Ecology (2006)
SAC Bio Datasets (091008)

(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 at variance to this Principle

Pre - European (ha)	Current Extent (ha)		Remaining (%)
IBRA Bioregion			
Swan Coastal Plain***	1,501,208	583,140	38.84
Shire (LGA)			
Harvey*	171,210	92,376	53.96
Beard Vegetation Association*:			
1000 (SCP Bioregion)	94175	25235	26.80
Heddle Vegetation Complex**:			
Bassendean Complex - Central and South No. 44			
	87,520	23,417	26.80

* Shepherd et al (2007)
** Heddle (2002)
*** Within the Intensive Landuse Zone

The application area consists of Beard Vegetation Association and Heddle Complex both ot which have 26.8% (Shepherd, 2007) vegetation representation remaining. The Environmental Protection Authority (EPA) supports the retention of remnant native vegetation to a 30% threshold level as recommended in the National Objectives Targets for Biodiversity Conservation below which, species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000).

However, the application is situated on the edge of the remnant near degraded areas, which by clearing, will further degraded the remnant.

Furthermore, the remnant may not be 'significant' in a local context but the vegetation represents a vegetative association that is in very good to excellent condition that has been extensively cleared.

EPA Bulletin 1108 (2003, Appendix 10) identifies the area under application as being significant remnant vegetation requiring conservation. This vegetation is part of the McLarty/Kemerton/Twin Rivers/Preston River/Gwindinnup ecological link (EPA 2003, Appendix 4).

The application area has also been identified as a part of a core regionally significant north - south linkage recognised under the South West Regional Ecological Linkages Project (EPA 2009). The proposed clearing is likely to contribute to further degradation or disruption of these ecological linkages.

Given the above reasoning?s, the application is at variance to this principle.

Methodology

EPA (2003)
EPA (2000)

EPA (2009)
Keighery (1994)
Shepherd et al. (2007)
Heddle et al (2002)
GIS databases:
Interim Biogeographic Regionalisation of Australia - EM 18/10/00
-Local Government Authorities - DLI 8/07/04
-Pre European Vegetation - DA 01/01
-Heddle Vegetation Complexes - DEP 21/06/95

(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 closest recorded wetland is an un-named dampland approximately 1.0km north east of the area under application, and the closest river record is the Brunswick River approximately 1.1km south of the area under application.

Given the scale (up to 2.0ha) of the clearing and the distance to the closest wetland and river to the area under application the proposed clearing is not likely to be at variance to this principle.

Methodology

GIS databases:
-ANCA, Wetlands - CALM 08/01
-EPP Areas - DEP 06/95
-EPP Lakes - DEP 28/07/03
-Geomorphic Wetlands (Mgt Categories) Swan Coastal Plain - DoE 21/07/03
-Hydrography Linear - DoE 1/2/04
-RAMSAR, Wetlands - CALM 21/10/02

(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 major land degradation issues are associated with the final land use of the application area, that is, gravel extraction. There is some risk that soil erosion may occur during works, 'however, it is expected that extractive industry licence conditions would be imposed to manage this risk during the operation of the pit' (DAFWA, 2005).

The applicant has committed to a land degradation management plan, focusing on implementing hydromulching, P.V.A., wind breaks, replanting and the use of limestone (DEC TRIM Ref: DOC24594).

Given the advice provided by DAFWA (2005) above, the application may be at variance to this principle.

Methodology

DAFWA (2005)
DEC TRIM Ref: DOC24594
GIS Layers:
- Hydrography, linear - DOW 13/7/06
- 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

The application area shares a common boundary (to the north) with DEC (Ex Dir Freehold) managed land. The proponent has proposed to retain a 15m wide buffer along this boundary to protect against potential edge effects from the proposed clearing (CALM, 2005).

Given the above, the application area is unlikely to impact on the values of the conservation area. Therefore, the application is unlikely to be at variance to this principle.

Methodology

CALM (2005)
GIS database:
- CALM Managed Lands and Waters - CALM 1/06/04

(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 located within the Leschenault Estuary - Collie River catchment and is not within a gazetted public drinking water source area or a defined Country Areas Water Supply (CAWS) catchment.

The area proposed to be cleared has a low salinity risk (GIS Database) and a groundwater salinity of 500 - 1000 mg/L (GIS database). If the land is returned to native vegetation after the extractive industry phase, then the eutrophication risk would be minimal (DAFWA, 2005).

Due to the small scale (up to 2.0ha) of the proposed clearing and the remaining remnants within the local area, the proposed clearing is not likely to cause deterioration of water quality.

Methodology

(DAFWA, 2005)
GIS databases:
-Hydrographic Catchments, Catchments - DoE 3/4/03
-Public Drinking Water Source Areas (PDWSAs) - DOE 29/11/04
-CAWSA Part IIA Clearing Control Catchments - DoE 17/11/05
-Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC
-Salinity Risk LM 25m - DOLA 00
-250K Map Series,Groundwater Salinity - DOW
-RIWI Act, Surface Water Areas - DOW

(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 application consists of yellow deep sands and pale deep sands with a majority of the land being comprised of yellow deep sands (DAFWA, 2005). As the application is associated with sandy soils, the site is likely to be free draining.

Given the scale of the application (up to 2.0ha), the associated sandy soils and the remaining remnants within the local area, the proposed clearing is unlikely to cause or exacerbate the incidence or intensity of flooding.

Methodology

(DAFWA, 2005)
GIS databases:
-Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The property is zoned with the Kemerton Buffer under the Shire of Harvey TPS No.1 within the Kemerton Industrial Zone Buffer Area (SCA No.2). The moratorium on extractive industries within the "Kemerton Buffer" will be lifted with the issuing of an extractive industry licence by the Shire of Harvey. This has not been issued to date.

The Western Australian Local Government Association South West Biodiversity Project in collaboration with DEC's Swan Bioplan Project has recognised a network of regionally significant ecological linkages across the south west region referred to as the South West Regional Ecological Linkages (SWREL). The EPA's Environmental Protect Bulletin No. 8 - South West Regional Ecological Linkages states that the EPA supports the SWREL and their methodology, and:

"expects that future planning and development proposals should consider and support the retention and enhancement of the regional ecological linkages and linkage function as one of the key considerations in environmental planning."

This proposal will impact on a 1a core linkage as identified by the Molloy et al. (2009) in the SWREL technical report, which recommends retention of these linkages. Clearing of this native vegetation will sever ecological linkages and reduce efficacy.

There is an underground saline pipeline easement within Lot 50, the grantors covenant does not allow to excavate to a depth of more than 300 millimetres within the easement. The application area is contained 17m east of the easement.

Methodology

EPA (2003)
Molloy et al. (2009)
GIS Database:
-Town Planning Scheme Zones - MFP 8/98

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing is at variance to Principle (e), may be at variance to Principle (a) and (g) and is not likely to be at variance to the remaining clearing Principles

5. References

CALM (2005). Comments on Clearing Application, Department of Conservation and Land Management, Western Australia. TRIM Ref: IN24786.

DAFWA (2005). Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DoE TRIM ref SWO26760.

DEC (2007) - BCI Threatened Orchids Project Officer, South West Region (2007). Department of Environment and Conservation, Western Australia. TRIM Ref: DOC15916

DEC (2008) - Site Inspection Report for Clearing Permit Application CPS 2566/1, Lot 50 on Diagram 87061, Stanley Rd, Leschenault. Site inspection undertaken 30/09/2009. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC67116).

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.

EPA (2003) Greater Bunbury Region Scheme. Bulletin 1108.

EPA (2009) South West Regional Ecological Linkages. Bulletin 8. Environmental Protection Authority, Western Australia. October 2009.

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.

Molloy et al. (2009). South West Regional Ecological Linkages Technical Report. Molloy, S., Wood, J., Hall, S., Wallrodt, S. and Whisson, G. September 2009. A report for Department of Environment and Conservation and Western Australian Local Government Association.

Outback Ecology (2006). Vegetation Survey of Bushland at Lot 50 Stanley Rd, Leschenault, and General Recommendations to Minimise Soil Erosion. TRIM Ref: DOC17592.

SAC Bio Datasets (080607) Department of Environment and Conservation, Kensington, 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 2007).

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)