Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1926/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: **Durnbond Pty Ltd**

1.3. Property details

Property: LOT 10177 ON PLAN 203442 (Lot No. 10177 BEE NORTH WALPOLE 6398)
LOT 13137 ON PLAN 181927 (NORTH WALPOLE 6398)

Local Government Area: Shire Of Manjimup

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
		Burning	Aquaculture

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
Mattiske Vegetation Complexes: Hazelvale (HA): Mosaic of a low woodland to woodland of Eucalyptus marginata subsp. marginata-Eucalyptus patens, low forest of Agonis juniperina-Callistachys lanceolata with closed heath of Myrtaceae spp. on sandy plains in the hyperhumid zone. Keystone (Kb): Mosaic of tall open forest of Eucalyptus guilfoylei-Eucalyptus jacksonii-Eucalyptus diversicolor on slopes of major hills rising above coastal plain with Allocasuarina decussata-Banksia grandis-Agonis flexuosa on slopes in hyperhumid and perhumid zones and tall open forest of Eucalyptus brevistylis-Eucalyptus marginata subsp. marginata-Corymbia calophylla and the occasional Eucalyptus megacarpa near rock outcrops in hyperhumid and perhumid zones.	The proposal is to clear 1.5ha of native vegetation for the purpose of sand extraction on Location No. 10177 and gravel extraction on Location No. 13137. The condition of the vegetation for Location 10177 is Very Good condition (DAFWA 2007 report photos and aerial imagery). From aerial imagery, the vegetation appears to have been minimally affected by adjacent sand extraction activities.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	
Mattiske Vegetation Complexes: Hazelvale (HA): Mosaic of a low woodland to woodland of Eucalyptus	For location 13137 the condition is Degraded. This vegetation has been affected by significant disturbance due to prior land clearing.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	

marginata subsp. marginata-Eucalyptus patens, low forest of Agonis juniperina-Callistachys lanceolata with closed heath of Myrtaceae spp. on sandy plains in the hyperhumid zone.

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 purpose of the proposed clearing is for sand extraction on Location 10177 (0.5ha) and gravel extraction on Location 13137 (1ha). The vegetation applied for on Location 10177 is considered to be in Very Good condition (Keighery 1994; DAFWA 2007) and is within an Agreement to Reserve (ATR). The ATR has been amended to exclude this area.

The vegetation applied for on Location 13137 is considered to be in Degraded to Completely Degraded condition (Keighery 1994; DAFWA 2007).

DAFWA (2007) advises that the sand pit within Loc. 10177 has been utilised over the years, and the owner now wishes to expand the pit. Additionally, the landholder intends to rehabilitate the area when the sand extraction has been completed. Therefore, revegetation conditions (as are contained witin the ATR) will be placed on the permit, if the permit is granted.

Given the condition and small area proposed to be cleared on Location 10177 in a landscape with approximately 70% of native vegetation remaining in a 10km radius, the proposed area is not considered to comprise a high level of biological diversity.

Additionally, it is unlikely that either of the proposed areas under application would provide significant habitat for fauna, rare flora species or be necessary for the maintenance of Threatened Ecological Communities (TECs).

Methodology

DAFWA (2007)
Keighery, B.J. (1994)
GIS datasets:
- Walpole 1.4m Orthomosaic - DOLA 99

(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 applied for on Location 10177 is considered to be in Very Good condition (Keighery 1994; DAFWA 2007) (0.5ha) and the area applied for on Location 13137 is considered to be in Degraded to Completely Degraded condition (Keighery 1994; DAFWA 2007) (1ha).

Seventy occurrences of 18 species have been recorded within the local area (10km radius of area under application), where majority of the recordings occur in remnant bushland or protected areas significantly larger than the area applied for. Additionally, aerial photography indicates that much of the native vegetation in the surrounding landscape within the local area remains (approximately 70% remaining).

Given the condition and size of the vegetation applied for, and the vegetation remaining in the local area, the area under application is unlikely to be significant habitat for fauna.

Methodology

Keighery, B.J. (1994)
SAC Bio datasets 041007
GIS datasets:
- Walpole 1.4m Orthomosaic - DOLA 99

(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 applied for on Location 10177 is considered to be in Very Good condition (Keighery 1994; DAFWA 2007) (0.5ha) and the area applied for on Location 13137 is considered to be in Degraded to Completely Degraded condition (Keighery 1994; DAFWA 2007) (1ha).

No threatened flora species are known within the area under application. Seventy occurrences of rare and

priority flora have been recorded within the local area (10km radius of area under application). Eight species were recorded as occurring within the same Beard Vegetation Association as the area under application, including 2 DRF species, 1 Priority 2 species, 1 Priority 3 species and 4 Priority 4 species. The majority of these recordings occur in remnant bushland or protected areas significantly larger than the areas applied for. Additionally, much of the native vegetation in the surrounding landscape within the local area remains (approximately 70% remaining).

Given the Degraded to Completely Degraded condition (Keighery 1994; DAFWA 2007) of Location 13137 and the proximity of the proposed clearing on Location 10177 to existing sand mining activities, it is unlikely that the proposed areas are necessary for the continued existence of rare flora.

Methodology

Keighery, B.J. (1994)
SAC Bio datasets 041007
GIS datasets:
- Walpole 1.4m Orthomosaic - DOLA 99
- Pre-European Vegetation - DA 01/01

(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 Threatened Ecological Communities (TECs) within the area or within 10km radius of area under application.

There are 9 recorded occurrences of Priority Ecological Communities (PEC) within 10km radius of areas under application. The majority of these occur within different Beard Vegetation Associations to that of the areas under application. The closest PEC is recorded as occurring 4.3km south of the areas under application.

Given this information, and the small size of the areas proposed to be cleared (1.5ha), it is unlikely that the vegetation under application is necessary for the maintenance of TECs or PECs.

Methodology

SAC Bio datasets 041007
GIS datasets:
- Walpole 1.4m Orthomosaic - DOLA 99
- 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 applied for on Location 10177 is considered to be in Very Good condition (Keighery 1994; DAFWA 2007) (0.5ha) and the area applied for on Location 13137 is considered to be in Degraded to Completely Degraded condition (Keighery 1994; DAFWA 2007) (1ha).

The proposed clearing occurs within the Warren IBRA Region, where the area of vegetation remaining is 78.8% (Shepherd, 2006). Within the Shire of Manjimup, 83.9% of pre-European vegetation remains (Shepherd et al. 2002). These percentages are higher than the National Objectives Targets for Biodiversity Conservation, which include an objective target that precludes clearance of ecological communities with a current extent below 30% of the present pre-1750 extent (EPA 2000).

	Pre-European Extent*	Current area (ha) *	Remaining extent (%)*	Current Extent Cons %*
Shire of Manjimup	705670***	591748***	83.9***	
Beard Veg Assoc 23	41065	31082	75.7	66.6
Beard Veg Assoc 27	130390	94269	72.3	74.3
IBRA Bioregion - Warren	834054	657114	78.8	56.8
Beard Veg Assoc 23	37745	28175	74.6	64.7
Beard Veg Assoc 27	70232	54152	77.1	81.6
From Mattsike Consulting (1998):				
Keystone (Kb):	283460	231926	81.8	
Hazelvale (HA):	56632	26346	46.5	

* Shepherd (2006)

*** Shepherd (2002)

The vegetation proposed to be cleared is a component of Beard Vegetation Association 23 and 27 (Hopkins et al., 2002), of which there is 75.7% remaining regionally and 74.6% remaining locally, and 72.3% remaining regionally and 77.1% remaining locally (Shepherd, 2006), respectively.

The vegetation proposed to be cleared on Location No. 10177 is also a component of Mattiske Vegetetation Types; Keystone (Kb) and Hazelvale (HA), of which there is 81.8% and 46.5% remaining, respectively.

The vegetation under application on Location 13137 is considered to be in Degraded to Very Degraded condition (Keighery 1994; DAFWA 2007) so would not be considered significant as a remnant of native vegetation.

The Beard vegetation complexes of the proposal area are well represented, locally and regionally. Aerial photography indicates that the surrounding landscape retains most of the original native vegetation within 10km radius (70% remaining).

The landholder intends to rehabilitate Location 10177 when sand extraction is completed (DAFWA 2007). A condition will be placed on the clearing permit to revegetate (similar to that on the ATR), if the permit is granted.

Given this information, the proposed clearing is not likely to be considered a significant remnant of native vegetation in a highly cleared landscape.

Methodology

DAFWA (2007)
Keighery, B.J. (1994)
Shepherd, D.P. (2006)
Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2002)
Mattsike Consulating (1998)
GIS datasets:
- Pre-European Vegetation - DA 01/01
- Walpole 1.4m Orthomosaic - DOLA 99
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Mattiske Vegetation - CALM 24/3/98

(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

Aerial photography shows the proposed clearing on Location 13137 is located within 1km west of the Frankland River, and on Location 10177, is located 2.8km south of the Frankland River.

There are 12 defined wetlands, protected as Environmentally Sensitive Areas, under the Environmental Protection Act 1986, within 2km radius, and 6 within 1km radius of the proposed area on Location 10177. The closest wetland is located within 100m north of Location No. 10177.

Aerial photography and topography suggests that this area is associated with a sand ridge and not directly associated with the wetland. Additionally, the proposed clearing falls outside any buffer requirements for this wetland.

Additionally, the NE Walpole wetland of the Walpole River Suite, a South Coast Significant Wetland, occurs approximately 2km south of the areas under application.

Methodology

GIS datasets:
- Walpole 1.4m Orthomosaic - DOLA 99
- Pre-European Vegetation - DA 01/01
- Hydrography, linear (hierarchy) - DOW
- Rivers, 1M - GA 01/06/00
- South Coast Significant Wetlands - DOE 4/8/03
- Topographic contours statewide - DOLA and ARMY 12/09/02
- Clearing Regulations - Environmentally Sensitive Areas - DOE 30/5/05

(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 vegetation under application to be cleared on Location 10177 was protected by an Agreement to Reserve to promote land conservation. DAFWA have advised that an amendment to the ATR has been made to allow for clearing, if the permit is granted, providing the area is rehabilitated and revegetated after the clearing (DOC52320).

DAFWA (2007) found that the risk of salinity and wind and water erosion, occurring as a result of the proposed clearing of 1.5ha, is low. Location 10177 is unlikely to be at risk of erosion whilst sand extraction occurs, due to the buffering vegetation at the end of the extraction phase; the area is to be revegetated.

The proposed clearing on Location 10177 would likely contribute to waterlogging on site. However, provided the area is vegetated at the conclusion of the sand extraction, the likely impact will be minimal (DAFWA 2007). The landholder intends to rehabilitate Location 10177 when the extraction has been completed.

It is unlikely that the removal of the remaining tall timber on Location 13137 will pose a measurable impact on waterlogging on this property (DAFWA 2007). This is due to the existing vegetation being of poor quality with no understorey and no pre-existing history of waterlogging evident.

Location 13137 consists of gravelly soils which pose a low risk of erosion. The proposed clearing is unlikely to contribute to land degradation.

Therefore, clearing as proposed is not likley to be at variance to this principle.

Methodology DAFWA (2007)

(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 area to be cleared on Location 10177 is located 100m west, 230m north , and 560m east of a Forest Conservation Area (under the Walpole Wilderness Area Management Plan). Location 13137 is located 620m west of this area . It forms a component of the same Beard Vegetation Associations as the proposed areas. Bothlocations form a component of an ecological linkage between the proposed Forest Conservation Areas.

There are 8 conservation areas on the Register of National Estate within the local area, the closest being over 2km from the proposed areas. The proposed areas are also over 2km north of the proposed South Coast National Park system.

Given the Degraded condition (Keighery 1994) of vegetation on Location 13137, and the lack of connectivity to other bushland remnants, the proposed clearing is unlikely to impact on the biodiversity values of the proposed Forest Conservation Areas or any other conservation areas.

It is recommended that permit conditions, if granted, manage weeds and dieback and to revegetate the sites once the extraction has been completed.

Given the proposed clearing on Location 10177 is only 0.5ha and that the area will be buffered by surrounding vegetation it is unlikely to be at variance to this principle.

Methodology DAFWA (2007)
Keighery, B.J. (1994)
GIS datasets:
- Pre-European Vegetation - DA 01/01
- CALM Managed Lands and Waters - CALM 1/07/05
- Walpole 1.4m Orthomosaic - DOLA 99
- WRC Estate - DOW
- Register of National Estate - EA 28/01/03

(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 of 1.5ha is for the purpose of sand extraction on Location 10177 and gravel extraction on Location 13137 and is within the Shire of Manjimup. The area of the proposed clearing is part of the Nornalup Inlet of the Frankland River catchment.

DAFWA (2007) advises that Location 10177 is situated close to the head of the Nornalup Inlet of the Frankland River with the (Australian Height Datum) AHD of the proposed clearing site at 140m, and Location 13137 is midslope in the same catchment with the AHD of the proposed clearing at 60m. The landform of this area consists of swampy corridors and broad sandy spurs. The subsystem is known as the Hazelvale Subsystem, consisting of pale deep sands, semi-wet soils, wet soil and grey deep sandy duplexes. The average rainfall for the area is approximately 1250 mm, annually.

DAFWA (2007) advises that the proposed clearing in this area is unlikely to contribute to salinity.

DAFWA (2007) advises that the risk of eutrophication is high for Location 10177, and medium to low for Location 13137. Given this information, and proximity to the Frankland River and wetland areas, clearing on Location 10177 may cause incremental deterioration in the quality of surface water. However, the proposed rehabilitation of Location 10177 following sand extraction will minimise the potential threat of eutrophication.

Methodology DAFWA (2007)
GIS datasets:
- Hydrographic Catchments - Subcatchments - DOW
- Walpole 1.4m Orthomosaic - DOLA 99
- Hydrography, linear (hierarchy) - DOW
- Rivers, 1M - GA 01/06/00
- South Coast Significant Wetlands - DOE 4/8/03

(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**
Given the small size of the area proposed to be cleared, it is unlikely to cause or exacerbate the incidence of flooding.

Methodology GIS datasets:
- Walpole 1.4m Orthomosaic - DOLA 99

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

Comments

There is one Native Title claim over the area under application, but as the property is privately owned, the granting of the clearing permit is a secondary approval and does not constitute a future act under the Native Title Act 1993.

The proposed clearing on Nelson Location 10177 was protected by an ATR. Reference: G403293. The ATR is to retain 20.8ha within Nelson Location 10177, and was established in 1997. DAFWA have advised that the ATR has been amended to allow for the clearing of 0.5ha within the ATR area providing the area is rehabilitated and revegetated after the sand extraction has taken place (DOC52320). Revegetation conditions will be imposed on the permit.

Methodology

4. Assessor's comments

Comment
The proposed clearing is not likely to be at variance to any of the Principles.

5. References

DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DoE TRIM ref DOC35695.

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.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.

Shepherd, D.P. (2006). Adapted from: Shepherd, D.P., Beeston, G.R., and 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.

Western Australian Herbarium, Department of Environment and Conservation. Florabase. (http://florabase.dec.wa.gov.au/) Accessed 15 October 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)