Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1748/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: **Jurien Bay Beach Resort Pty Ltd**

1.3. Property details

Property: LOT 1136 ON PLAN 217317 (House No. 1 CASUARINA JURIEN BAY 6516)

Local Government Area: Shire Of Dandaragan

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4		Mechanical Removal	Miscellaneous

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 1026: Mosaic: Shrublands; Acacia rostellifera, A. cyclops (in the south) & Melaleuca cardiophylla (in the north) thicket / Shrublands; Acacia lasiocarpa & Melaleuca acerosa heath (Hopkins et al. 2001, Shepherd et al. 2001).	Vegetation in the area under application exists as planted gardens associated with residential dwellings and a coastal scrubland system. The area is dissected by vehicular and walking tracks. The coastal scrubland system in the area under application consists of a 'Closed Heath' of Acacia lasiocarpa, A. Cyclops, A. cochelaris, Spyridium globulosum, Allocasuarina lehmanniana, Anthocersis preissii, Leucopogon parviflorus, Rhagodia baccata, Amyena miquellii, Clematis linearifolius, Hemiandra pungens, Myoporum insulare, Ollearia axillaris, Regilia cilliata and Santalum acuminatum (ENV Australia, 2006). In addition, approximately 25% of the area under application is known to support weeds such as Tambookie Grass, Sea Spinach, Hottentot Fig, African Lovegrass, Veldt Grass, Ganazia, Rose Pelargonium and Trachyandra divaricata (ENV Australia Pty Ltd, 2006).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the vegetation under application was ascertained through the consultants report that was provided with the original application. (ENV Australia Pty Ltd, 2006, DEC TRIM Ref DOC16250.

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 consists of planted gardens associated with residential dwellings and a coastal scrubland system (ENV Australia Pty Ltd, 2006).

The coastal scrubland vegetation in the area under application is a 'Closed Heath' consists of fifteen plant species (Acacia lasiocarpa, A. Cyclops, A. cochelaris, Spyridium globulosum, Allocasuarina lehmanniana, Anthocersis preissii, Leucopogon parviflorus, Rhagodia baccata, Amyena miquellii, Clematis linearifolius, Hemiandra pungens, Myoporum insulare, Ollearia axillaris, Regilia cilliata and Santalum acuminatum) (ENV Australia Pty Ltd, 2006).

The coastal scrubland vegetation in the area under application appears to be somewhat diverse. However, approximately 20% of this vegetation has been cleared for vehicular tracks. Approximately 25% of the vegetation is known to support weeds such as Tambookie Grass, Sea Spinach, Hottentot Fig, African Lovegrass, Veldt Grass, Ganazia, Rose Pelargonium and Trachyandra divaricata. The environmental impact of these weeds on biodiversity in the area has been rated as 'low' to 'moderate' (ENV Australia Pty Ltd, 2006). On average, the vegetation in the area under application is known to be in 'good' condition. The area under application is surrounded by infrastructures of residential and urban landuses and therefore cut-off from other natural areas.

Considering factors such as the isolation from areas of outstanding biodiversity, potential for weed invasion, edge effects from surrounding landuses and the historical disturbances to vegetation, the area is not likely to be representative of a high level of biological diversity.

Therefore, this proposal is not likely to be at variance to this Principle.

Methodology

GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00.
- Jurien Bay Marine Park 50cm Orthomosaic - DLI 04
ENV Australia Pty Ltd, 2006

(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

There are no known records of Threatened or Priority Fauna within the area under application. The area under application is small (4ha) and has no connectivity to larger tracts of native vegetation. The vegetation in the area under application appears to be somewhat diverse; however, only a small portion of the vegetation is 'Closed Heath' while other parts contain vegetation with little or no understorey, in residential landscapes (ENV Australia Pty Ltd, 2006). The site contains bare ground, residential dwellings, vehicle and walking tracks and weeds. The vegetated areas may provide shelter to animals living in the area; however the area is disconnected from other natural areas by residential and urban landuses such as housing schemes and road networks.

Considering the isolation from natural areas, weed invasion, edge effects from surrounding landuses, and historical disturbances to vegetation and ever-present human activity, the area is not likely to maintain a significant habitat for fauna.

Therefore, this proposal is not likely to be at variance to this Principle.

Methodology

GIS Databases:
- Threatened Fauna - CALM 30/09/05
ENV Australia Pty Ltd, 2006

(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

One species of Declared Rare Flora (DRF), one species of Priority 4 and one species of Priority 2 flora occur within a radius of 10km of the area under application. The DRF occurs at approximately 8.6km southeast of the area under application, whilst the Priority 4 species occurs approximately 3.7km away and the Priority 2 species occurs approximately 7.6km from the area under application. The soil type where DRF and priority flora occur differs from the soil types of the area under application. In addition, the area is surrounded by roads, residential developments and cleared areas, and is not contiguous with these populations of significant flora.

Two individuals of Grevillea olivacea (Priority 4 species) are located within the area under application (ENV Australia Pty Ltd, 2006). These plants are known to occur widely in the Jurien area and in protected reserve systems such as Drovers Cave National Park, Mt Lesueur NP and Beekeepers Reserve. In addition, populations of Grevillea olivacea occur in Gardner Range, Snag Island, Stockyard Gully and Lounge River; and

it is known as a popular horticultural plant in garden hedges in Perth Metropolitan region. (ENV Australia Pty Ltd, 2006). DEC (2007) has advised that 'removal of these two individuals of Grevillea olivacea is not considered to be detrimental to the conservation of this species as it is widely available in nurseries and planted in gardens' (DEC TRIM Ref. DOC19579).

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

Methodology GIS Databases:
- Declared Rare and Priority Flora list - CALM 01/07/05
- Clearing Regulations - Environmentally Sensitive Areas - DoE 30/05/05
- Soils, Statewide - DA 11/99
DEC, 2007
ENV Australia Pty Ltd, 2006

(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 occurrences of TECs located within 10km of the area under application.

Therefore, this proposal is not likely to be at variance to this Principle.

Methodology GIS Databases:
- Threatened Ecological Communities - CALM 12/04/05

(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 on this site is a component of Beard Vegetation Association 1026 (Hopkins et al. 2001) of which there is 89.2% of the pre-European extent remaining (Shepherd et al. 2001a). The Shire of Dandaragan has 48.8% of pre-European extent remaining (Shepherd et al. 2001). In addition the Swan Coastal Plain Bioregion has 38.1% of pre-European extent remaining (Shepherd et al. 2001a). The IBRA Bioregion and Shire of Dandaragan have a conservation status of 'depleted' for biodiversity conservation (Department of Natural Resources and Environment 2002).

The vegetation in the area under application is somewhat diverse with fifteen plant species present in the coastal scrubland and nine species in planted vegetation in residential landscapes (ENV Australia Pty Ltd, 2006). However, weed invasion, disturbances from road networks and edge effects from surrounding landuses limit its conservation value.

The area under application falls within EPA Position Statement No. 2 however it does not impact on this proposal as the clearing is not for agricultural purposes.

Therefore, this proposal is not likely to be at variance to this Principle.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation status**	Reserves/CALM-managed land, %
IBRA Bioregion - Swan Coastal Plain***		1,501,456	571,758	38.1	Depleted 32.7
Shire - Dandaragan***	668,507	326,283	48.8	Depleted	Not available
Beard veg type - 1026	70,704	63,068	89.2	Least concern	52.4

* (Shepherd et al. 2001; 2001a)
** (Department of Natural Resources and Environment 2002)
*** Area within Intensive Landuse Zone

Methodology GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Pre-European Vegetation - DA 01/01
- Local Government Authorities - DLI 08/07/04
- EPA Position Paper No 2 Agriculture Region - DEP 12/00
Shepherd et al, 2001; 2001a.
Department of Natural Resources and Environment, 2002
ENV Australia Pty Ltd, 2006

(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 at variance to this Principle

There are no watercourses or wetlands within the area under application. The Coastal Waterline is situated approximately 90m west of the area under application.

Therefore, this application is not at variance to this Principle.

Methodology

GIS Databases:
- Hydrography, linear - DoE 01/02/04
- Hydrographic Catchments - Catchments - DoE 23/03/05

(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 surface geology of the area under application is known to be Safety Bay Sand: calcareous eolian and beach sand. These soils are extremely permeable. The site is situated very close to the sea (90m), where strong winds and wind bursts prevail most of the year. (ENV Australia Pty Ltd, 2007). The area under application has a flat topography and a medium risk of salinity.

Clearing may not cause water erosion or flooding as the area under application is situated in a region of low average annual rainfall of 600mm and has highly permeable sandy soils on a flat terrain. Given the close proximity (90m) of the area under application to sea water and salt sprays, it is reasonable to assume the groundwater to be considerably saline. Therefore clearing may not further intensify prevailing salinity levels in the proposed site. Eutrophication of the coastal waters in the area under application is not likely to be a concern because this site is not likely to have an agricultural landuse.

Wind erosion could be an issue after clearing has taken place, because the area under application is composed of sandy soils, situated near the sea and exposed to strong winds.

Therefore this application may be at variance to this Principle.

Methodology

GIS Databases:
- Rainfall, Mean Annual - BOM 30/09/01
- Salinity Risk LM 25m - DOLA 00
- Soils, Statewide - DA 11/99

ENV Australia Pty Ltd, 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 Beekeepers Nature Reserve is situated approximately 4.4km north of the area under application. The Drovers Cave National Park is situated approximately 5km northeast of the area under application. The Southern Beekeepers Nature Reserve is situated approximately 6.8km south and approximately 7.5km southeast of the area under application. However, these are not connected to the area under application. Other than these Conservation Areas, there are no other Nature Reserves, National Parks, Conservation Parks, Proposed National Parks or other DEC managed areas within a radius of approximately 10km from the area under application. No large areas of remnant vegetation are linked to the area under application.

An Environmentally Sensitive Area (ESA) that contains a species of DRF is situated within a radius of about 10km from the area under application. However, the soil type in the ESA differs from the soil type of the area under application. Furthermore, the area under application is not connected to this ESA via corridors of native vegetation.

Therefore, this proposal is not likely to be at variance to this Principle.

Methodology

GIS Databases:
- CALM Regional Parks - CALM 12/04/02
- CALM Managed Lands & Waters - CALM 01/07/05
- Proposed National Parks FMP-CALM 19/03/03
- Register of National Estate - EA 28/01/03
- Soils, Statewide - DA 11/99
- Clearing Regulations - Environmentally Sensitive Areas - DOE 30/5/05

(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 situated within the Coastal hydrographic catchment. The area under application is not situated within a Public Drinking Water Source Area (PDWSA). The soils in the area are sandy (ENV Australia Pty Ltd, 2006) and there is a medium risk of salinity in the area under application.

The site does not contain water courses or surface water expressions of groundwater. However, groundwater depth in the local area is less than 1m AHD. (ENV Australia Pty Ltd, 2006). This indicates that the local area contains a shallow watertable.

Considering the close proximity of the area under application to the ocean, it is plausible to assume that the quality of the underground water in the local area is saline. Therefore, even though the area has a shallow watertable (i.e. <1m) and medium risk of salinity, clearing of vegetation in the area under application is not likely to deteriorate the quality of underground water any further, as it is expected to be already saline.

The sandy soils in the area under application are assumed to have faster rates of water infiltration. Clearing under these conditions may increase the rising of watertable further. However, considering the relatively low average annual rainfall in the region (600mm), clearing is not likely to cause a substantial watertable rise in the local area.

Therefore, this proposal is not likely to be at variance to this Principle.

Methodology

GIS Databases:
- Public Drinking Water Sources (PDWSAs) - DOE 09/08/05
- Hydrographic Catchments - Catchments - DOE 23/03/05
- Hydrography, linear - DoE 01/02/04
- Rainfall, Mean Annual - BOM 30/09/01

ENV Australia Pty Ltd, 2006

(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 has a flat terrain and the soils are sandy. The site has no water courses or surface water expressions of groundwater. The groundwater depth in the local area is less than 1m AHD. (ENV Australia Pty Ltd, 2006). This indicates that the local area contains a shallow watertable, which may rise rapidly during extreme rainfall events and cause flooding.

However, the prevailing conditions such as flat topography, rapidly draining sandy soils and low average annual regional rainfall (i.e. 600mm), suggest that flooding is unlikely to occur as a result of clearing in the area under application.

Therefore, this proposal is not likely to be at variance to this Principle.

Methodology

GIS Databases:
- Rainfall, Mean Annual - BOM 30/09/01
- Topographic Contours, Statewide - DOLA 12/09/02
- Soils, Statewide - DA 11/99

ENV Australia, 2006

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

Comments

Shire advised 'Council has granted Planning Approval for the development of this site which is zoned 'Tourist'. Council supports the application for land clearing as submitted by Jurien Bay Beach Resort Pty Ltd for the clearing of 4 ha of Lot 11336, subject to the submission and approval by Council of a Dust Management Plan, prior to clearing of the site occurring and the issuing of a building licence. Lot 1136 has developed residential land located on three sides of the lot and Council has concerns with respect to dust / sand blowing from the site when the entire 4 ha has been cleared and while development works are continuing'.

There will be a requirement for water to be used in dust management after clearing. Therefore there is a requirement for a RIWI Act Licence for the area under application. The Shire of Dandaragan have approved the use of their standpipe which is located within 1km of the area under application at a cost of $1.50 per kilolitre.

There is no further requirement for a Works Approval or EP Act Licence for the area under application.

There is a Native Title claim over the area under the application. However, the area under application is freehold land and therefore Native Title has been extinguished.

There are two Environmental Impact Assessments over the area under application. The EIA with reference number CRN142604 is the Shire of Dandaragan TPS7 District Zoning Scheme Review Report and Local Planning Strategy. This has a Level of Assessment of 19 'Scheme Assessment Not Assessed' - Advice given under Section 48a(1)(A)(no appeals). The Level of Assessment has been set on 11 August 1999. The other EIA carries the reference number CRN173726 and refers to a Natural Gas Power Station in the Shire of Derby-West Kimberley. This EIA is given a Level of Assessment of 32 on 18 September 2001, and the EPA has requested further information from the Shire. However, this EIA appears to have been wrongly set, as it is situated far from the area under application (i.e. Derby-West Kimberley). The EPA advised that the EIA would not have any relevance to the property under application and hence it may not be of any concern to the current assessment.

Methodology GIS Databases:
- EPA Position Paper No 2 Agriculture Region - DEP 12/00
- Environmental Impact Assessments - DOE 24/02/06
- Native Title Claims - DLI 17/11/05

Shire of Dandaragan Submission - DEC TRIM Ref. DOC19095

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Miscellaneous	Mechanical Removal	4	The assessable criteria have been addressed and the proposal may be at variance to Principle g. Principle (g): Wind erosion could be an issue after clearing has taken place, because the area under application is composed of sandy soils, situated near the sea and exposed to strong winds. In order to address the issue of wind erosion, a condition will be placed on the permit requiring the applicant to apply a suitable dust suppression product to the area under application.

5. References

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.

ENV Australia Pty Ltd (2006) Environmental Assessment Report for Lot 1136 Hasting Street Jurien Bay. Accompanied the application for a Clearing Permit (Area Permit). DEC TRIM Ref DOC16250.

ENV Australia Pty Ltd (2007) Jurien Bay Beach Resort Dust Management Plan. DEC TRIM Ref DOC21296

Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALM Science after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.

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 2005).

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)