Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1726/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Department of Education and Training

1.3. Property details

Property: LOT 84 ON DIAGRAM 95590 (House No. 50 GUNGURRU HOCKING 6065)
LOT 184 ON DIAGRAM 95391 (House No. 50L GUNGURRU HOCKING 6065)

Local Government Area: City Of Wanneroo

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.84		Mechanical Removal	Building or Structure

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 6: Medium woodland; Tuart and Jarrah (Shepherd et al. 2001, Hopkins et al. 2001)	The proposed clearing consists of 0.84 ha of native vegetation on Lot 184 Gungurru Ave, Hocking (City of Wanneroo).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Description and condition of the vegetation under application was determined from the Site Inspection (2007).
Heddle Vegetation Complex: Karrakatta Complex - Central: Predominantly low open forest and low woodland of Banksia spp. - E. todtiana, less consistently open forest of E. gomphocephala - E. todtiana - Banksia species (Heddle et al. 1980).	The native vegetation is composed of Tuart (Eucalyptus gomphocephala) and Jarrah (E. marginata) with a middle storey of Banksia attenuata, B. prionotes, Jacksonia furcellata and Casuarina sp. and an under storey including Jacksonia sericea, Macrozamia riedlei, Xanthorrhoea preisii, Allocasuarina humilis, Thysanotus dichotomus, Gompholobium tomentosum, Hibbertia sp. and Hardenbergia comptoniana (Site Inspection 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 proposed clearing is for the development of the Hocking Primary School. The site has been extensively cleared in the past and the vegetation condition is degraded to completely degraded (Site Inspection, 2007; GIS Database; Keighery 1994).

The site is also surrounded by housing within an area zoned urban.

It is noted within the site inspection (2007) that a number of Tuart trees and a Priority 4 flora species (Jacksonia sericea) were identified on site.

However given the disturbance and condition of the vegetation under assessment the proposed clearing is not likely to hold a high level of biological diversity.

Methodology Reference:
Site Inspection (2007) (TRIM Ref: DOC 17022)

GIS Database:
- Swan Coastal Plain North 20cm Orthomosaic - DLI06
- Declared Rare and Priority Flora List - CALM 01/07/05

(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 for 0.84ha for the Hocking Primary School. The site has been extensively cleared in the past and the vegetation condition is degraded to completely degraded (Site Inspection, 2007; GIS Database; Keighery 1994).

Given the small area proposed to be cleared and the degraded nature of the vegetation within an urban environment it is unlikely the vegetation under application is significant habitat for fauna indigenous to Western Australia.

Methodology Reference:
- Site Inspection Report (2007) (TRIM Ref: DOC 17022)
- Keighery (1994)

GIS Databases:
- SAC Bio datasets 19/03/2007
- Swan Coastal Plain North 20cm Orthomosaic - DLI06

(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 three DRF species, two Priority 2, three Priority 3 and two Priority 4 species within a 10 km radius of the area under application.

Of these species, the only species that occurs on the same soil and vegetation complex as the area under application, is the priority species Jacksonia sericea. This species was identified within the area under application during the Site Inspection (2007). This species is known to occur widely on the Swan Coastal Plain including Wanneroo, Trigg Beach, Perth, Karrinyup, Mandurah-Pinjarra, Neerabup National Park, Ardross and Stakehill (Atkins, 2006). It is unlikely that the proposed clearing will significantly affect the continued existence of this population (Species and Communities Branch, DEC)

Methodology References:
Site Inspection Report (2007) (TRIM Ref: DOC17022)
Atkins (2006)
Keighery (1994)

GIS Databases:
- SAC Bio datasets 20/02/2007

(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 twenty known occurrences of the Threatened Ecological Community (TEC) 20a, known as Banksia attenuata woodlands over species rich dense shrublands.

The site inspection (2007) found Banksia prionotes, Jarrah and Tuart on site. These species are not consistent with 20a as described by Gibson et al. (1994).

Given the above, the vegetation under application is not likely to impact on any TEC.

Methodology Reference:
Site Inspection Report (2007) (TRIM Ref: DOC17022)
Gibson et al. (1994)

GIS Databases:
- SAC Bio datasets 20/02/2007

(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

Vegetation within the area under application is identified as a component of both Beard Vegetation Associations and Heddle Vegetation Complexes. One Beard Vegetation Association occurs within the area under application (Association 6) and has 23.3% remaining of the pre-European extent. One Heddle Vegetation Complex occurs within the area under application (Karrakatta Complex - Central and South), with 29.5% remaining of the pre-European extent.

	Pre-European	Current area (ha)	Remaining % extent (ha)	Conservation reserves/DEC-	% in status*** managed land
Swan Coastal Plain	1,529,235	657,450	43.0*	Depleted	-
City of Wanneroo	78,809	45,361	57.6*	Least Concern	-
Beard vegetation associations 6	79,001	18,398	23.3*	Vulnerable	14.5
Heddle vegetation complex Karrakatta Complex - Central and South	49,912	14,729	29.5**	Vulnerable	2.5

* (Shepherd et al. 2001)
**(EPA, 2003)

The State government is committed to the National Objective Targets for Biodiversity Conservation, which includes targets that prevent the clearing of ecological communities with an extent below 30% of that present pre-1750 (Department of National Resources and Environment 2002).

The vegetation under application is relatively small (0.84ha), is isolated from larger remnants, does not form part of a regionally significant linkage and the vegetation present on site has been aggressively invaded by exotic Perennial Veldtgrass (Site Inspection 2007), and therefore is unlikely to be considered as a significant remnant of native vegetation. However given that the proposed clearing is associated with vegetation communities that have less than 30% of pre-European vegetation remaining the area under application may be at variance to this principle.

Methodology

References:
Site Inspection (2007) (TRIM Ref. 17022)
Department of Natural Resources and Environment (2002)
EPA (2003)
EPA (2000)
Heddle et al. (1980)
Shepherd et al. (2001)
Hopkins et al. (2001)
Janis forests criteria (1997)

GIS databases:
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 not at variance to this Principle

The nearest wetland to the area under application is Lake Joondalup which a classified as a Conservation Category Wetland and is located 1.3 km west of the site.

As the vegetation under application does not occur in or within an area associated with a water course or wetland, clearing is not at variance to this principle.

Methodology

GIS Databases:

- Geomorphic wetlands (Mgt Categories) - Swan Coastal Plain - DOE 15/09/04

(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 vegetation under application lies within soil unit JK9. These soils are associated with an undulating dune landscape with some steep dune slopes and underlain by aeolianite at depth. The chief soils are brown sands with siliceous sands on the deeper dunes, especially on the western side of the unit and leached sands on the more subdued dunes, especially on the eastern side of the unit (Department of Agriculture 2004).

The area under application lies within a Class 3 Acid Sulphate Soil (ASS) Risk area. This Class is defined as having no known risk of ASS.

As the soil on site is sand, wind erosion post clearing may occur, however given the size of the area under application (0.84ha) it is not likely the proposed clearing will cause appreciable land degradation.

Methodology

References:
Department of Agriculture (2004)

GIS Databases:
- Acid Sulphate Soil risk map, Swan Coastal Plain, DEC
- Soils, Statewide - DA 11/99

(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 at variance to this Principle

The nearest Bush Forever sites to the area under application are 1.1 km to the west (Yellagonga Regional Park) and 1.3 km to the north east (High Road Bushland). The nearest DEC managed land includes Lake Joondalup Nature Reserve this being 1.3 km west of the area under application, Jandabup Nature Reserve located 30 km to the north east and Gnangara-Moore River State Forest located 48 km to the east of the area under application.

Given the small area applied to be cleared (0.84 ha) and the distance to these areas, clearing is unlikely to have any impact on the conservation values of the above mentioned conservation areas.

Methodology

GIS Databases:
- CALM Managed Lands and Waters - CALM 01/07/05
- BushForever - MFP 07/01
- Geomorphic wetlands (Mgt Categories) - Swan Coastal Plain - DOE 15/09/04
- EPP, Areas - DEP 06/95

(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 for 0.84ha for the Hocking Primary School.

Given the small area proposed to be cleared within an urban environment it is unlikely the proposed clearing will cause deterioration in the quality of surface or underground water.

Methodology

GIS Database:
- Evaporation Isopleths - BOM 09/98
- Isohyets - BOM 09/98
- Salinity Risk LM 25m - DOLA 00
- Hydrography, linear - DOE 01/02/04
- Hydrography, Linear (Hierarchy) - 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

Clearing of 0.84ha is unlikely to cause or exacerbate the risk of flooding, due to the small area under application.

Methodology

References:
Site Inspection (2007) (TRIM Ref. 17022)

GIS Databases:
- Topographic Contours, Statewide - DOLA 12/09/02
- Evaporation Isopleths - BOM 09/98
- Isohyets - BOM 09/98
- Geomorphic wetlands (Mgmt Categories) - Swan Coastal Plain - DOE 15/09/04

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

Comments

The City of Wanneroo has received Development Approval from the Western Australian Planning Commission for the proposed development.

The Department of Education and Training have a current ground water licence for Lot 84 and Lot 184 for the extraction of 17,250 kililitres per annum for the irrigation of the school gardens and lawns once the development is complete.

There is no other RIWI Act Licence, Works Approval or EPA Act Licence that affects the area under application.

Methodology

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Building or Structure	Mechanical Removal	0.84	The application has been assessed against the clearing principles, planning instruments and other matters., and the proposed clearing found principle (e) may be at variance; principles (h) and (f) not at variance and all other principles not likely to be at variance.

5. References

Atkins, K.J. (2006). Department of Environment and Conservation, Declared Rare and Priority Flora List for Western Australia. 21 December 2006.

Department of Agriculture (2004) Soil-landscape mapping, Western Australia Department of Agriculture, Date accessed 15/01/2007.

Department of Environment and Conservation (2007) SAC Bio Datasets 19/03/07. Department of Environment and Conservation, Western Australia.

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.

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 (2006) Guidance for the Assessment of Environmental Factors -level of assessment of proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region. Report by the EPA under the Environmental Protection Act 1986. No 10 WA.

Gibson et al. (1994). A Floristic Survey of the Southern Swan Coastal Plain. Western Australian Department of Conservation and Land Management.

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.

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

JANIS Forests Criteria (1997) Nationally agreed criteria for the establishment of a comprehensive, Adequate and Representative reserve System for Forests in Australia. A report by the Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee. Regional Forests Agreement process. Commonwealth of Australia, Canberra.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, 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 2005).

Site Inspection. (2007). Site Inspection Report, Department of Environment and Conservation (DEC). Perth, Western Australia. TRIM Ref. DOC17022.

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)