Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 1902/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: **The Montessori School**

1.3. Property details

Property: LOT 2 ON PLAN 7453 (House No. 18 MONTESSORI KINGSLEY 6026)

Local Government Area: City Of Joondalup

Colloquial name: Replay of CPS 1560

1.4. Application

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

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 2006, Hopkins et al. 2001). Heddle Vegetation Complex - Karrakatta Complex Central and South; Open Forest and Woodland (Heddle et al. 1980).	The vegetation under application (0.14ha) is located within the grounds of the Montessori School (~2ha), of which ~80% appears on orthomosaic to be uncleared. The vegetation under application is surrounded to the north, east, south and west by an established residential area, with ~1.1ha of remnant vegetation located immediately west and north west of the vegetation under application. The area is zoned urban. The vegetation under application is in a degraded condition, comprising of a low level of biological diversity. The upper storey is sparse with a few scattered Eucalyptus marginata, Xanthorrhoea preissii and Macrozamia riedlii. The under storey is dominated by weeds with a few native species, including Macrozamia riedlei, Xanthorrhoea preisii and Jacksonia furcellata (CPS 1560/1 Site Inspection 2006).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The clearing description is based on orthomosaics and information obtained from the site inspection undertaken for CPS 1560/1 (2007) (TRIM Ref. DOC10307).

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 vegetation under application (0.14ha) is located within the grounds of the Montessori School (~2ha) of

which ~80% is uncleared. The vegetation under application is surrounded to the north, east, south and west by an established residential area, with ~1.1ha of remnant vegetation located immediately west and north west of the vegetation under application.

The vegetation under application is in a degraded condition, comprising of a low level of biological diversity. The upper storey comprises of a few scattered Eucalyptus marginata with an under storey dominated by weeds and scattered Xanthorrhoea preissii and Macrzamia riedlei (CPS 1560/1 Site Inspection 2006).

Furthermore, the vegetation under application has been, and continues to be, subject to disturbance and extensive weed invasion.

Given this, the degraded condition, low biological diversity and relatively small area applied to be cleared (0.14ha), the vegetation under application is not likely to be at variance to this Principle.

Methodology Reference:
- CPS 1560/1 Site inspection (2006) (TRIM Ref. DOC10307)

GIS database:
- Swan Coastal Plain North 20cm Orthomosaic - DLI06

(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 vegetation under application (0.14ha) is located within the grounds of the Montessori School (~2ha) of which ~80% is uncleared. The vegetation under application is surrounded to the north, east, south and west by an established residential area, with ~1.1ha of remnant vegetation located immediately west and north west of the vegetation under application.

The vegetation under application is in a degraded condition, comprising of a low level of biological diversity. Furthermore, the vegetation under application has been, and continues to be, subject to disturbance and extensive weed invasion.

Given this, the degraded condition of the vegetation and relatively small area proposed to be cleared (0.14ha), the vegetation under application is not considered to comprise the whole or part of, or be necessary for the maintenance of, significant habitat for indigenous fauna.

Methodology Reference:
- CPS 1560/1 Site inspection (2006) (TRIM Ref. DOC10307)

GIS database:
- 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 no known occurrences of Declared Rare Flora (DRF) within close proximity to the vegetation under application (5km radius). The closest known occurrence of a DRF species is Marianthus paralias, located ~11km from the vegetation under application.

Given the distance to the closest known occurrence of DRF, the vegetation under application is not considered to be necessary for the continued existence of DRF.

Methodology GIS database:
- DEC SAC Bio Datasets, Date accessed 19/07/2007

(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 eight known occurrences of Threatened Ecological Communities (TEC) within a 5km radius of the vegetation under application, all of which are known as SCP20a - Banksia attenuata woodland over species rich dense shrublands (Endangered status) (Gibson et al. 1994).

The closest known occurrence this TEC is located ~2.8kms from the vegetation under application. Given the distance to this occurrence and relatively small area applied to be cleared (0.14ha), the vegetation under application is not considered to be necessary for the maintenance of the nearby threatened ecological communities.

Furthermore, based on the vegetation clearing description, the vegetation under application is not considered to comprise the whole or part of, a TEC. Therefore, the proposed clearing is not likely to be at variance to this

Principle.

Methodology Reference:
- Gibson (1994)
GIS database:
- DEC SAC Bio Datasets, Date accessed 19/07/2007

(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 is not likely to be at variance to this Principle

The vegetation under application is a component of Beard Vegetation Association 6 (Hopkins et al. 2001) and Heddle: Karrakatta Complex Central and South (Heddle et al. 1980) of which 26.6% and 30% of Pre European extent remain respectively (Heddle et al. 1980, Shepherd et al. 2001).

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents a clearance of ecological communities with an extent below 30% of that present pre-European settlement (Commonwealth of Australia 2001).

Both Heddle: Karrakatta Central and South and Beard Vegetation Association 6 are on or below the State Government's biodiversity conservation target of 30%. Furthermore, the City of Joondalup has only 15.5% remaining vegetation, totalling 1,650ha.

Notwithstanding, given the degraded condition of the vegetation under application (CPS 1560/1 Site inspection 2006) and its relatively small size (0.14ha), within an area zoned urban, the vegetation under application is not considered to be significant as a remnant of native vegetation.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In reserves/DEC managed land
IBRA Bioregions				
Swan Coastal Plain**	1,501,456	571,758	38.1	
City of Joondalup*	10,332	1,605	15.5	
Vegetation type:				
Beard: Unit 6**	56,345	15,013	26.6	10.9
Heddle:				
Karrakatta Central/South	49,912	14,729	30	9.0

* (Shepherd et al. 2001)
** (Shepherd 2006)

Methodology References:
- Commonwealth of Australia (2001)
- CPS 1560/1 Site inspection (2006) (TRIM Ref. DOC10307)
- Hopkins et al. (2001)
- Shepherd et al. (2001)
- Shepherd (2006)
GIS databases:
- Pre-European Vegetation - DA 01/01.
- Heddle Vegetation Complexes - DEP 21/06/95.
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00.

(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

There are no watercourses or wetlands mapped within the vegetation under application, the closest wetland being Lake Goolelal (a Conservation Category Wetland and EPP Lake) located ~330m from the vegetation under application. The nearest water course is the Swan River, located ~ 15kms south of the vegetation under application.

Given the distance to the nearest watercourse and wetland and relatively small area applied to be cleared (0.14ha), the proposed clearing is not considered likely to impact on these areas. Furthermore, the vegetation under application is positioned high in the landscape and is representative of an upland vegetation community (CPS 1560/1 Site inspection 2006). Therefore, the vegetation under application is not considered to be growing in, or in association with, an environment associated with a watercourse or wetland.

Methodology Reference:
- CPS 1560/1 Site inspection (2006) (TRIM Ref. DOC10307)

GIS databases:
- Geomorphic Wetlands (Classification), Swan Coastal Plain - DEC
- Hydrography, linear - DOE 1/2/04
- Topographic Contours, Statewide - DOLA 12/09/02

(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 is associated the JK9 soil unit. This soil unit is described as a dune landscape with brown and siliceous sands and underlying deep aeolianite deposits. Leached sands also occur within this soil complex (Northcote et al. 1960). The area of vegetation under application also has no known risk of Acid Sulphate Soils.

The soils associated with the vegetation under application can be prone to wind erosion. However, given the relatively small area proposed to be cleared (0.14ha) and degraded condition of the vegetation (CPS 1560/1 Site inspection 2006), the proposed clearing is not considered likely to lead to appreciable land degradation on or off site.

Methodology References:
- CPS 1560/1 Site inspection (2006) (TRIM Ref. DOC10307)
- Northcote et al. (1960)

GIS Databases:
- Soils, Statewide - DA 11/99
- Acid Sulphate Soil risk map, SCP - DOE 01/02/04

(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

There are six conservation areas within a 5km radius of the vegetation under application, the closest being Bush Forever site 299 (Yellagonga Regional Park, Kingsley) located ~220m from the area under application.

Given the degraded condition of the vegetation under application (CPS1560/1 Site inspection 2006) and relatively small area proposed to be cleared (0.14ha), the proposed clearing is not considered likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Methodology Reference:
- CPS 1560/1 Site inspection (2006) (TRIM Ref. DOC10307)

GIS databases:
- CALM Managed Lands and Waters, CALM 1/07/05
- Bush Forever, MfP 07/01

(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 vegetation under application (0.14ha) is located within the grounds of the Montessori School (~2ha), which is surrounded to the north, east, south and west by an established residential area.

The vegetation under application is in a degraded condition comprising an upper storey of a few scattered Eucalyptus marginata and weed dominated understorey (CPS 1560/1 Site Inspection 2006).

The groundwater table is located ~23m below the surface.

Given the degraded nature of the vegetation under application and relatively small area proposed to be cleared (0.14ha), the proposed clearing is not considered likely to cause deterioration in the quality of surface or underground water.

Methodology References:
- CPS 1560/1 Site inspection (2006) (TRIM Ref. DOC10307)
- Department of Environment (2004)

GIS database:
- Swan Coastal Plain North 20cm Orthomosaic - DLI06

(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 vegetation under application (0.14ha) is located within the grounds of the Montessori School (~2ha), which is surrounded to the north, east, south and west by an established residential area.

The vegetation under application is in a degraded condition comprising an upper storey of a few scattered Eucalyptus marginata and weed dominated understorey (CPS 1560/1 Site Inspection 2006).

Given the depth to groundwater (23m), geology of the site (porous sands), high position in the landscape and relatively small of vegetation under application (0.14ha), the proposed clearing is not considered likely to cause, or exacerbate the incidence or intensity of flooding.

Methodology

References:
- CPS 1560/1 Site inspection (2006) (TRIM Ref. DOC10307)
- Department of Environment (2004)
- Northcote et al. (1960)

GIS databases:
- Geomorphic Wetlands (Mgt Categories) Swan Coastal Plain - DEC
- Soils, Statewide - DA 11/99
- Swan Coastal Plain North 20cm Orthomosaic - DLI06
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The vegetation under application was previously subject to an application to clear (CPS 1560/1). This application was issued with an Approval in Principle (AIP) and subsequently withdrawn as Development Approval had not been submitted.

Development Approval from the City of Joondalup has been received (City of Joondalup, 2007).

There are no known Aboriginal Sites of Significance within the area under application, and Lot 2 Montessori Place, Kingsley is not part of a Native Title Claim. Therefore the proposed clearing does not fall under the future acts process of the Native Title Act 1993.

There is no RIWA Act Licence or EP Act Licence that will affect the proposal.

Methodology

References:
- City of Joondalup (2007)

GIS databases:
- Aboriginal Sites of Significance - DIA
- Native Title Claims - DLA 7/11/05
- RIWI Act, Areas - WRC 05/04/02

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Recreation	Mechanical Removal	0.1	

5. References

City of Joondalup (2007). Development Approval. (TRIM Ref: DOC43848)

Commonwealth of Australia (2001). National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS, Canberra.

CPS 1560/1 Site inspection (2006) (TRIM Ref. DOC10307).

Department of Environment (2004) Perth Groundwater Atlas, 2nd Edition.

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.

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

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R.

F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

Shepherd, D.P. (2006). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 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.

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)