Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2851/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Salvatore & Catena Carmela Congiu

1.3. Property details

Property: LOT 30 ON DIAGRAM 77035 (House No. 2178 CHITTERING LOWER CHITTERING 6084)

Local Government Area: Shire Of Chittering

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
9.2		Mechanical Removal	Flora Harvesting

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 associations: 3 - Medium forest, jarrah and marri. 4 - Medium woodland; marri and wandoo. (SAC Bio Datasets 31/12/2008; Shepherd, 2006) Heddle Vegetation Complexes: Murray And Bindoon Complex In Low\To Medium Rainfall - No description available Yalanbee Complex In Low Rainfall - No description available. (Heddle et al, 1980) Mattiske Vegetation Complexes: Murray 2 (My2) - Open forest of Eucalyptus marginata subsp. thalassica-Corymbia calophylla-Eucalyptus patens and woodland of Eucalyptus wandoo with some Eucalyptus accedens on valley slopes to woodland of Eucalyptus rudis-Melaleuca rhaphiophylla on the valley floors in semiarid and arid zones. Yalanbee (Y6) - Woodland of Eucalyptus wandoo-Eucalyptus accedens, less consistently open forest of Eucalyptus marginata subsp. thalassica-Corymbia calophylla on lateritic uplands and breakaway landscapes in arid and perarid zones. (Mattiske and Havel, 1998)	The area under application (clearing of 9.2 ha of native vegetation within an 11.5ha area) is located within Lot 30, which is a 35 ha property (zoned rural). The proposed clearing is for flora harvesting of grass trees (Xanthorrhoea spp and Kingia sp) with a backhoe. The vegetation under application in the northern to south-western section is described as jarrah-marri open forest over shrubland on sands. The vegetation includes Eucalyptus marginata, Banksia grandis, Xanthorrhoea preissii, Kingia australis, Nuytsia floribunda, Calytrix sp, Petrophile sp and Verticordia sp. The vegetation under application in the south-eastern to north-eastern section is described as wandoo over low shrubland on laterite. The vegetation includes Eucalyptus wandoo, Banksia sessilis, Xanthorrhoea preissii and Hibbertia sp. The vegetation under application is predominately in excellent condition (~7.4ha).	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the native vegetation under application was sourced from the site inspection on 22 December 2008 (DEC, 2008).
As above	The western side of the area under application is in good condition (~1.8ha) with the structure altered from disturbances.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	As above

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 may be at variance to this Principle

The proposed clearing primarily comprises the removal of approximately 9.2ha of grass trees (Xanthorrhoea spp and Kingia sp) within an 11.5ha area. The vegetation under application is predominantly in excellent condition with minimal disturbance from vehicle tracks and with no weed species observed over the majority of the area under application (DEC, 2008). The vegetation under application may provide suitable habitat for ground-dwelling fauna, and foraging and nesting habitat for avian species.

Given the low level of disturbance and the excellent condition of the vegetation under application it is considered that the area under application may comprise a high level of biological diversity. Therefore, the clearing as proposed may be at variance to this Principle.

Methodology

Reference:
- DEC (2008)

(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

Two fauna species of conservation significance have been recorded within the local area (10km radius). The nearest recorded fauna species, Brush-tailed Phascogale, is located approximately 500m north of the area under application. The Brush-tailed Phascogale is an arboreal marsupial that occurs in forests and woodlands where suitable tree hollows are available.

The proposed clearing primarily comprises the removal of grass trees (Xanthorrhoea spp and Kingia sp). The vegetation under application is predominantly in excellent condition (DEC, 2008) with intact structure that may provide suitable habitat for ground-dwelling fauna, and foraging and nesting habitat for avian species.

Although the vegetation under application is predominantly in excellent condition and comprises habitat values, it is not considered to comprise significant habitat, given the extensive surrounding remnant vegetation including similar vegetation within Lot 30, a 35ha property and within the local area (5km radius) with ~62% native vegetation remaining. Therefore, the proposed clearing is not considered likely to be at variance to this Principle.

Methodology

Reference:
- DEC (2008)

GIS Databases:
- NLWRA, Current Extent of Native Vegetation
- SAC Bio Datasets 07/01/2009

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments

Proposal may be at variance to this Principle

There are 16 known records of two species of rare flora in the local area (10km radius), being Acacia anomala and Thelymitra stellata. The nearest known record is Thelymitra stellata located approximately 3.3 km west south-west of the area under application. The two species of rare flora occur on similar soils and within similar vegetation complexes as the area under application.

There are 13 species of priority flora recorded in the local area. The following priority flora, recorded in the local area, occur on similar soils and within similar vegetation complexes as the area under application:
- Adenanthos cygnorum subsp chamaephyton (P3);
- Acacia drummondii subsp affinis (P3);
- Grevillea corrugata (P1);
- Gastrolobium crispatum (P1);
- Hypocalymma sylvestre (P1);
- Baeckea sp Chittering (P4);

Although the clearing is targeting grass trees (Xanthorrhoea spp and Kingia sp) significant disturbance of understorey has occurred where flora harvesting has been historically undertaken within Lot 30. Given the likely impact to other native vegetation and the similar soil and vegetation complex mapping, the area under application may include or be necessary for the maintenance of rare and priority flora.

Methodology

GIS Databases:
- Heddle Vegetation Complexes
- Mattiske Vegetation
- SAC Bio Datasets 07/01/2009

- Soils, Statewide

(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 Threatened Ecological Communities (TEC) within the local area (10km radius). The nearest recorded TEC is Floristic Community Type 07: Herb rich saline shrublands in clay pans located approximately 11.3 km south-west of the area under application.

FCT 07: Herb rich saline shrublands in clay pans does not have similar species composition and generally occurs on the heavier clays of the Pinjarra Plain/Guildford Clays (eastern side of the Swan Coastal Plain) and is not likely to occur on the Darling Scarp, where the area under application is located.

Given the distance to the nearest TEC that is located on the Swan Coastal Plain, the area under application is not considered to support an occurrence of a TEC and occurs outside of the buffer of a TEC; therefore the proposed clearing is not considered likely to be at variance to this Principle.

Methodology

Reference:
- DEC (2008)

GIS Database:
- Interim Biogeographic Regionalisation of Australia
- SAC Bio Datasets 07/01/2009
- Soils, Statewide
- Surface Geology

(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 within the area under application is identified as a component of Beard vegetation types 3 and 4 and Mattiske Murray 2 and Yalenbee Complexes, of which there is 70%, 24.1%, 74.2% and 51.4% of Pre-European extent remaining respectively (Shepherd, 2007; Mattiske and Havel, 1998).

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

However, given the relatively high representation of remnant vegetation within the Mattiske vegetation complexes (74.2% and 51.4%) and the heavily vegetated local area (5km radius) with ~62% of native vegetation remaining; the vegetation under application is not considered to be a significant remnant within an extensively cleared area. Therefore, the clearing as proposed is not likely to be at variance to this Principle.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregion*				
Jarrah Forest	4,506,655	2, 440,940	54.1	
Shire of Chittering*	121,839	49,665	40.7	
Local area (5km radius)	7,850	~4,900	~62	
Beard vegetation type*				
3	2,661,405	1,863,719	70.0	80.0
4	1,054,279	254,656	24.1	25.4
Mattiske vegetation complex**				
Murray 2 (My2)	593,148	440,381	74.2	NA
Yalenbee (Y6)	1,583,884	814,609	51.4	NA

* (Shepherd, 2007)
** (Mattiske and Havel, 1998)

Methodology

References:
- Commonwealth of Australia (2001)
- Mattiske and Havel (1998)
- Shepherd (2007)

GIS Databases:

- Pre-European Vegetation
- Interim Biogeographic Regionalisation of Australia
- NLWRA, Current Extent of Native Vegetation
- SAC Bio Datasets 31/12/2008

(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 at variance to this Principle

There are no waterbodies mapped within the area under application; however, an unnamed brook (a minor tributary associated with the Brockman River) was observed within the south-western and southern section of the area under application. Given this area was a defined watercourse with vegetation growing in association, the clearing as proposed is at variance to this Principle.

Methodology

Reference:
- DEC (2008)

GIS Database:
- Hydrography, linear

(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

Soil-landscape mapping identifies the western section under application (~30%) as Wundowie YA7 phase, which is described as very gentle to gentle sloping areas (<5%) located in small pockets on summits and at breaks of slope (Chittering Landcare Group, 2006). The chief soils are deep pale sand over laterite (Chittering Landcare Group, 2006). These soils are considered to be at high risk of wind erosion, moderate risk of phosphorous export, low risk of water erosion and nil risk of waterlogging (Chittering Landcare Group, 2006).

Soil-landscape mapping identifies the eastern section under application (~70%) as Gabbla 4x phase, which is described as very gentle to gentle (<10%) mid and upper slopes (Chittering Landcare Group, 2006). The chief soils are shallow sandy and gravelly loams underlain by country rock but with some pockets of deeper sands and clay (Chittering Landcare Group, 2006). These soils are considered to be at high risk of water erosion, high risk of phosphorous export, moderate risk of wind erosion and nil risk of waterlogging (Chittering Landcare Group, 2006).

Although the clearing is targeting grass trees (Xanthorrhoea spp and Kingia sp) significant disturbance of understorey and therefore soils has occurred where flora harvesting has been historically undertaken within Lot 30. Given this and the section of deep sands and the associated high wind erosion risk, and the section of sandy and gravelly loams and the associated high water erosion and phosphorous export risk, is considered likely that the proposed clearing may cause appreciable land degradation.

Methodology

Reference:
- Chittering Landcare Group (2006)

(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 may be at variance to this Principle

There is one conservation reserve within the local area (5km radius), being an unnamed Nature Reserve (ID 41938; also identified as a System 6 Conservation Reserve) located 3.1 km south-east. Aerial mapping of the local area confirms connectivity from the area under application to the conservation area.

The vegetation under application is considered to be predominantly in excellent condition (DEC, 2008) and may provide an ecological linkage or corridor to adjacent or nearby conservation areas. Although the clearing is targeting grass trees (Xanthorrhoea spp and Kingia sp) significant disturbance of understorey has occurred where flora harvesting has been historically undertaken within Lot 30. Significant disturbance of understorey vegetation may result in fragmentation of the remnant vegetation and limit the value as part of an ecological corridor.

Given the excellent condition of the native vegetation under application and that the vegetation has some connectivity to the nearby conservation area, and it is considered likely that the proposed clearing may have an indirect impact on the environmental values of the conservation areas through reducing ecological corridors and inhibiting fauna movement.

Methodology

Reference:
- DEC (2008)

GIS databases:
- DEC Managed Lands and Waters

- System 6 Conservation Reserves
- Swan Coastal Plain North 40cm Orthomosaic - DLI05

(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 may be at variance to this Principle

There are no waterbodies mapped within the area under application; however, an unnamed brook (a minor tributary associated with the Brockman River) was observed within the south-western and southern section of the area under application. Clearing within the watercourse may result in an increase in surface water runoff causing erosion gullies leading to increase sedimentation of the Brockman River.

The area under application is not located in a Public Drinking Water Source Area. There is a low to high salinity risk for the area associated with the unnamed brook (~3.5ha).

In addition, soil-landscape mapping identifies the chief soils of the eastern section under application (~70%) as shallow sandy and gravelly loams underlain by country rock but with some pockets of deeper sands and clay (Chittering Landcare Group, 2006). These soils are considered to be at high risk of water erosion and high risk of phosphorous export (Chittering Landcare Group, 2006).

Given the occurrence of a minor watercourse within the area under application and the low to high salinity risk associated with this watercourse, and the high risk of water erosion, phosphorous export and sedimentation; the clearing as proposed may cause deterioration in the quality of surface water.

Methodology

Reference:
- Chittering Landcare Group (2006)

GIS Databases:
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSAs)
- Salinity Risk LM 25m

(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

Soil-landscape mapping identifies the area under application as Wundowie YA7 phase with the chief soils being deep pale sand over laterite, and Gabbla 4x phase with the chief soils being shallow sandy and gravelly loams underlain by country rock but with some pockets of deeper sands and clay (Chittering Landcare Group, 2006). These soils are considered to be at nil risk of waterlogging and flooding (Chittering Landcare Group, 2006). Therefore, this clearing proposal is not likely to be at variance to this Principle.

Methodology

Reference:
- Chittering Landcare Group (2006)

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

Comments

Mr and Mrs Congiu (2009) sent a letter and six plans outlining the proposed land uses in response to correspondence, which the Department sent on 29 January and 5 March 2009. This correspondence requested that the Department consider one of the six plans so that the applicant may proceed with development of the property. The applicants advised that, as recommended by DEC, they will not amend the original application for the areas for fire hazard separation/protection zones around the machinery shed.

Shire of Chittering (2009) discussed the proposal of clearing for flora harvesting at a council meeting on 18 February 2009. The outcome of the meeting was that the Council does not support the proposed permit to clear native vegetation from Lot 30 for flora harvesting purposes for the following reasons:
- The proposed flora harvesting activity will diminish and fragment Lot 30 (currently containing high conservation values) from the rest of Site 6.5 [an area identified as having high conservation value and worthy of further ecological assessment];
- The proposed activity does not promote the inclusion of biodiversity corridors along Ellen Brook and across the Shire recommended by the Draft Local Biodiversity Strategy;
- Fragmentation of vegetation should be strongly discouraged in an area that has seen increased salinity arising from past clearing activity and is within the environmentally sensitive Marbling Brook sub catchment of the Brockman River.

A submission (2008) for the proposed clearing of the area under application was received. The submission considered environmental issues including fragmentation of the vegetation, the slow or nil recovery of grass trees once removed, and the location of Lot 30 within the Marbling sub-catchment of the Brockman River. These issues were considered as part of the assessment. The submission stated that the vegetation proposed to be cleared is next door to a Land for Wildlife property and it is important to maintain the integrity of the under

storey; and that the harvesting of grass trees for resale should not be encouraged as there are many subdivisions within the Shire of Chittering where grass trees have been destroyed. The flora harvesting within remnant vegetation should not occur and the harvesting of grass trees is opposed.

The applicant has submitted an application for a Commercial Producers Licence.

Lot 30 on Diagram 77035 is freehold land and is zoned Rural 3 under the Local Town Planning Scheme.

Methodology References:
- Shire of Chttering (2009)
- Submission (2008)

GIS databases:
- Cadastre
- Town Planning Scheme Zones

4. Assessor's comments

Comment

The assessable criteria have been addressed and the clearing as proposed is at variance to Principle (f) and may be at variance to Principles (a), (c), (g), (h) and (i).

5. References

Chittering Landcare Group (2006) LandSmart: Brockman River, Ellen Brook and Wooroloo Catchments (CD-Rom), Chittering Landcare Group and Swan Catchment Council.

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

DEC (2008) Site Inspection Report for Clearing Permit Application CPS 2851/1, Lot 30 Chittering Road, Lower Chittering. Site inspection undertaken 22/12/2008. Department of Environment and Conservation. TRIM Ref DOC72890

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.

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, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.

Shepherd, D.P. (2007). 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.

Shire of Chittering (2009) Direct Interest Submission for CPS 2851/1. TRIM Ref DOC77671.

Submission (2008) Direct Interest Submission from Ellen Brockman Integrated Catchment Group, Muchea. TRIM Ref DOC72646

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)