Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2917/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Jason Willoughby on behalf of Port Cornelian Pty Ltd

1.3. Property details

Property: LOT 253 ON PLAN 3327 (CLIFFORD RD, MADDINGTON 6109)

Local Government Area: City Of Gosnells

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.047		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: 968 - Medium woodland; jarrah, marri & wandoo. (Shepherd 2007; SAC Bio datasets 17/2/2009) Heddle: Guildford Complex: A mixture of open forest to tall open forest of E. calophylla - E. wandoo - E. marginata and woodland of E. wandoo (with rare occurrences of E. lane-poolei). Minor components include E. rudis - M. rhaphiophylla. (Heddle et al 1980).	The proposal is to clear 4.047 hectares of native vegetation for the purpose of site redevelopment. The majority of the area under application is dominated by tall shrub of Leptospermum laevigatum (Victorian Tea Tree) over Adenanthos cygnorum and Chamelaucium uncinatum and is considered to be in degraded condition.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The vegetation clearing description is based on a site inspection by DEC officers on 17 February 2009 and a flora and vegetation survey conducted by Weston (2008).
	Completely degraded areas are restricted to areas of invasive non-native grass species such as Veldt grass and patches of bare sand.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	
	The vegetation in the south western portion of the area under application comprises Corymbia calophylla over Banksia ilicifolia, Nuytsia floribunda, Xanthorrhoea preissii, Dasypogon bromeliifolius, Conostylis spp and sedges. Weston (2008) has advised that the vegetation within this portion of the applied area is in good condition and can be inferred as FCT3a: Corymbia calophylla - Kingia australis Woodlands on Heavy Soils of the Swan Coastal Plain (Threatened Ecological Community, EPBC Endangered). Furthermore, this area is mapped as a Multiple Use Wetland, but has values commensurate with a Conservation Category Wetland (Weston, 2008)	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	

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 at variance to this Principle

A spring flora and vegetation survey of Lot 253 conducted by Weston (2008) identified a total of 85 flora taxa (including 58 native species and 27 weed species). No rare flora species were recorded within the applied area. Two priority flora species Calothamnus rupestris (P4) and Verticordia lindleyi subsp. Lindleyi (P4) and six regionally significant taxa (Anarthria lavis, Cytogonidium leptocarpoides, Hypocalymma angustifolium, Mesomelaena tetragona, Schoenus rigens and Tremulina tremula) were recorded on site.

According to Weston (2008) of the identified flora species, C. rupestris (P4) are rare in the local area (Maddington Kenwick Strategic Employment Area) and only occur in Corymbia calophylla vegetation. Of the identified regionally significant flora species, S. rigens has the smallest geographical range and A. laevis is only found in three other places on the Swan Coastal Plain (SCP) and is considered rare on the SCP.

In addition, the vegetation found within the southwest portion of the area under application was inferred as Floristic Community Type 3a: Corymbia calophylla - Kingia australis Woodlands on the Swan Coastal Plain, which is listed as a Threatened Ecological Community (EPBC Endangered) (Weston, 2008).

Given the vegetation under application includes priority flora, regionally significant taxa and that a portion of the applied vegetation is considered to comprise a TEC and has values commensurate with a Conservation Category Wetland, the vegetation applied to be cleared is considered to comprise a high level of biological diversity.

It is therefore considered that the proposed clearing is at variance to this Principle.

Methodology

References:
- DEC (2009)
- Weston (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 may be at variance to this Principle

There are seven fauna species of conservation significance which have been recorded within the local area (5km radius) being the Quenda (Isoodon obesulus fusciventer, P5), Water Rat (Hydromys chrysogaster, P4), Chuditch (Dasyurus geoffroii, Vu), Woylie (Bettongia penicillata ogilbyi, En), and two species of Bees (Leioproctus bilobatus, P2 and Leioproctus douglasiellus, En).

The most recent recorded sighting of the Chuditch and Woylie respectively occurred in 1992 and 1988, with no further sightings of these species recorded within the local area. Given the degraded condition of the vegetation under application and the close proximity of Bush Forever site 53 (~75 metres east), it is not considered likely that the vegetation under application would provide significant habitat for the Chuditch and Woylie.

The area under application is located within the distribution range of the Carnaby's Black Cockatoo (Calyptorhynchus latirostris) (EPBC Act Endangered) and the Eucalyptus trees under application may provide some foraging habitat for these birds, which feed on the seeds and nectar from the flowers of Eucalypts. However, it is not considered likely to be significant feeding habitat given the limited vegetation under application and the presence of other vegetation within conservation reserves in the local area.

The vegetation under application comprises Eucalyptus species, Banksia menziesii, B. ilicifolia, Leptospermum laevigatum (Victorian Tea Tree) and Nuytsia floribunda over an understorey comprising Adenanthos cygnorum,
Chamelaucium uncinatum Conostylis species, Xanthorrhoea preisii, Dasypogon bromeliifolius, sedges and invasive non-native grasses, and is likely to provide suitable habitat for a range of ground dwelling fauna species such as the Quenda, snakes and lizards. During the flora survey (Weston, 2009) Quenda were observed on site and numerous Quenda diggings were observed throughout the applied area during the DEC site inspection (DEC, 2009).

Although the vegetation under application is largely in a degraded condition overall, it could provide some foraging habitat for the native Bee. Furthermore, the southern portion of the applied area is located within a mapped wetland, and the vegetation found within this locality may provide some seasonal habitat potential for the Water Rat which occupies habitat in the vicinity of permanent water.

Given the above, it is therefore considered that the proposed clearing may be at variance to this Principle.

Methodology

References:
- Burbidge (2004)

- DEC (2009)
- Government of Western Australia (2000)
- Weston (2008)

GIS Databases:
- Bush Forever
- Geomorphic Wetlands (Classification), Swan Coastal Plain
- Hydrography, linear (hierarchy)
- SAC BIO Datasets - accessed 7/08/2008

(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

Within the local area (5km radius) there are 32 known occurrences of rare flora, the closest of which Conospermum undulatum is located approximately 420m from the area under application.

The area under application has been subjected to a number of flora surveys, the two most recent surveys conducted in September 2008, did not identify any rare flora within the applied area (Nuts About Natives, 2008 and Weston, 2008).

Given that no rare flora were identified during the appropriately timed flora surveys of the applied area, it is not considered likely that the vegetation under application includes, or is necessary for the continued existence of, rare flora.

Methodology

References:
- DEC (2009)
- Nuts Abourt Natives (2008)
- Weston (2008)

GIS Databases:
- Heddle Vegetation Complexes
- Soils, Statewide - DA 11/99
- SAC BIO Datasets 13/02/2009

(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 at variance to this Principle

There are 37 known occurrences of Threatened Ecological Communities (TEC) within a 5km radius of the area under application, which have been identified as the following Floristic Community Types (FCT):
- FCT3a - Corymbia calophylla - Kingia australis woodlands on heavy soils;
- FCT3b - Corymbia calophylla - Eucalyptus marginata woodlands on sandy clay soils;
- FCT02 - Southern wet shrublands;
- FCT07 - Herb rich saline shrublands in clay pans;
- FCT08 - Herb rich shrublands in clay pans;
- FCT10a - Shrublands on dry clay flats;
- FCT20a - Banksia attenuata woodlands over species rich dense shrublands; and
- FCT20b - Eastern Banksia attenuata and/or Eucalyptus marginata woodlands.

The closest of the identified TECs is FCT3b: Corymbia calophylla - Eucalyptus marginata woodlands on sandy clay soils which is located approximately 150m east of the area under application.

The area under application has been subjected to a number of flora surveys, the two most recent surveys were conducted in September 2008 (Nuts About Natives, 2008 and Weston, 2008). The more detailed spring flora and vegetation survey of Lot 253 conducted was conducted by Weston (2008)

The vegetation within the southwest portion of the applied area was inferred as a possible TEC FCT3a: Corymbia calophylla - Kingia australis woodlands on heavy soils. This TEC is listed by the Minister for the Environment as 'Critically Endangered' in Western Australia, and as 'Endangered' under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

Given that the area under application is located within the buffer of three identified TECs and that a portion of the vegetation has been inferred as a possible TEC FCT3a, which is considered 'Critically Endangered, ' it is considered that the proposed clearing is at variance to this Principle.

Methodology

References:
- DEC (2009)
- Weston (2008)

GIS Databases:
- SAC BIO Datasets - accessed 13/02/2009

(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 at variance to this Principle

Heddle et al. (1980) defines the vegetation under application as Guildford Complex of which there is 5.0% of pre-European extent remaining (EPA 2006). The vegetation under application is also described as Beard vegetation association 968 of which there is 33.34% of pre-European extent remaining (Shepherd 2007). In addition, the Heddle vegetation complex is identified as having 0.2ha representation within secure tenure (EPA 2006).

The area under application is located within the City of Gosnells, within which there is 29.49% of pre-European extent remaining.

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 of Pre-European settlement (Commonwealth of Australia 2001). The Guildford vegetation association in the area under application is below the recommended minimum of 30% representation.

Whilst the EPA (2006) recognises that the Perth Metropolitan Region as a 'constrained area,' providing for the reduction of vegetation complexes to a minimum of 10% of pre-European extent, the current representation of Guildford Complex (5.0%) still does not meet this reduced criterion.

Although, the majority of the vegetation under application is non - native, the vegetation under application contains a small area of native vegetation in a good or better condition that is extremely under represented and a significant remnant in the local area. Therefore, it is considered likely for the proposed clearing to be at variance to this Principle.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregion*				
Swan Coastal Plain^	1,501,208	583,140	38.84	32.55
City of Gosnells*	12,717	3,750	29.49	
Heddle Vegetation complex**				
Guildford Complex	92,497	4,662	5.0	0.2
Beard Vegetation complex*				
968	296,877	98,987	33.34	54.62

* (Shepherd, 2007)
** (EPA, 2006)
^ Area within Intensive Land Use Zone

Methodology

References:
- Commonwealth of Australia (2001)
- EPA (2006)
- Government of Western Australia (2000)
- Shepherd et al (2007)

GIS Databases:
- Pre-European Vegetation
- Heddle Vegetation Complexes
- Interim Biogeographic Regionalisation of Australia

(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 numerous wetlands within a 5km radius of the area under application; including a Conservation Category Wetland located approximately 115m east of the applied area. In addition, there are two Environmental Protection Policy Lakes, the nearest is located approximately 4.2km northwest of the area under application and the Brixton Street Associated Wetlands which is listed on the Register of National Estate (id 19536) is located approximately 1.2km northwest.

The nearest watercourses are the Bickley Brook which is located approximately 1.1km south of the area under application and Yule Brook which is located approximately 1.2km southeast of the applied area.

The south western portion of the area under application is located within a mapped Multiple Use Wetland, situated at the edge of a seasonally waterlogged flat palusplain which is underlain by the Guildford Formation of the Pinjarra Plain (Weston, 2008) with the wetland dependant vegetation is considered to be in a good condition (Weston, 2008).

According to Weston (2008) this wetland has values commensurate with Conservation Category Wetland (CCW) as it includes a scarce vegetation association inferred as FCT3a: Corymbia calophylla - Kingia australis Woodlands on Heavy Soils of the Swan Coastal Plain (Threatened Ecological Community, EPBC Endangered). In particular the understorey is dominated by the regionally significant rush species Anarthria laevis and Cytogonidium leptocarpoides which are unknown in other Marri low forests on the Swan Coastal Plain apart from this population and two other smaller areas of vegetation within the Maddington Kenwick Strategic Employment Area precinct.

The vegetation under application includes wetland dependent vegetation and is located within a mapped wetland, which is commensurate with the values of a CCW and is inferred as a TEC, Given the significance of this wetland in the local area and given the area under application is part of significant habitat, the proposed clearing is at variance to this Principle.

Methodology

References:
- DEC (2009)
- Weston (2008)

GIS Databases:
- EPP, Lakes
- Geomorphic Wetlands (Classification), Swan Coastal Plain
- Hydrography, linear (hierarchy)
- Register of National Estate

(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 area under application occurs where the dunes of the Bassendean Sand encroach onto a palusplain underlain by sandy clay of the Guildford formation (Weston, 2009). The majority of the soils within the applied area contain poorly drained deep, bleached sands; with yellow mottled soils with pale sands and loamy sand over clay in the southern portion of the area under application (Department of Agriculture, 2005). These soils are generally associated with a low risk of salinity.

The main land degradation risk associated with the removal of vegetation on the identified soil types is considered to be wind erosion, nutrient export and water logging with a moderate risk of water erosion (Department of Agriculture, 2005). Given that the proposed land use is for site redevelopment, nutrient levels should not be artificially elevated therefore minimising the risk of eutrophication. However, without appropriate ground cover, windbreaks or adequate dust suppression on exposed surfaces, the proposal is likely to cause land degradation through wind erosion.

Although the south western portion of the applied area is located within a mapped wetland at the edge of a seasonally waterlogged flat palusplain and the removal of deep rooted perennial vegetation may result in some temporary localised waterlogging and water erosion. However, given the limited size of the mapped wetland (~1.2ha), it is not considered likely to result in appreciable land degradation.

Given the above, it is therefore not considered likely that the proposed clearing would result in appreciable land degradation.

Methodology

References:
- DEC (2009)
- Department of Agriculture (2005)
- Northcote et al (1960-1968)
- Weston (2008)

GIS Databases:
Acid Sulfate Soil Risk Map, Swan Coastal Plain
Salinity Risk LM 25m - DOLA 00
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 likely to be at variance to this Principle

There are numerous areas reserved for conservation purposes within a 5km radius of the area under

application, the closest being Bush Forever site 53 (Clifford Street Bushland) which is located approximately 75 metres east of the applied area and the Darling Range Regional Park, also identified as a System 6 Conservation Reserve, is located approximately 2km to the east.

The area under application is situated in a landscape which has been extensively cleared for rural and urban development and has been isolated from local conservation areas, it is therefore not considered likely to provide a corridor of movement of fauna to these reserves.

Given the distance and lack of connectivity to these reserves, it is not considered likely that the proposed clearing would have a direct or indirect impact on the environmental values of any nearby conservation areas.

Methodology

References:
- DEC (2009)

GIS Databases:
- Bushforever - MF 07/01
- CALM Managed Lands and Waters - CALM 1/07/05
- CALM Regional Parks - CALM 12/04/02
- Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007
- System 6 Conservation Reserves

(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

The south western portion of application (~1.2ha) is located within a mapped Multiple Use Wetland, which has values commensurate with Conservation Category Wetland (Weston 2008). The nearest watercourse, Bickley Brook, is located approximately 1km south of the applied area.

The area under application has a nil to low risk of salinity and is not located within a Public Drinking Water Source Area (PSWSA). Given that the clearing as proposed does not involve the deep excavation of the soils and given the limited size (4.047) and degraded condition of the vegetation under application, it is not considered likely that it would have an impact on salinity on or off site.

However, given the south western portion (`1.2ha) of the proposed clearing is within a wetland, it is considered that it may cause a temporary deterioration in the quality of surface water through sedimentation. The proposed clearing therefore may be at variance to this Principle.

Methodology

References:
- DEC (2009)

GIS Databases:
- Geomorphic Wetlands (Classification), Swan Coastal Plain
- Hydrographic Catchments - Catchments - DOW
- Hydrography, linear (hierarchy) - DOW
- Public Drinking Source Areas (PDWAs) - 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

The area under application occurs within the Bassendean Sand dune system and the Guildford Formation which forms the Pinjarra Plain (Weston, 2008). The majority of the soils within the area under application contain poorly drained deep, bleached sands; with yellow mottled soils with pale sands and loamy sand over clay in the southern portion of the applied area (Department of Agriculture, 2005).

Although the area under application is prone to water logging, given the extent of clearing in the local area for rural and urban development, and the relatively small area proposed to be cleared (4 hectares of mostly degraded vegetation), it is not considered likely that the proposed clearing would cause or exacerbate, the incidence or intensity of flooding.

Methodology

References:
- DEC (2009)

GIS Databases:
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC
Hydrography, linear (hierarchy) - DOW
Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The applicant was sent correspondence on the 26th February 2009. A response letter was received from Coffey Environments Pty Ltd on behalf of Port Cornelian Pty Ltd dated 7th April 2009. The applicant states that a Metropolitan Scheme amendment to rezone the area under application is being initiated as well as the area being earmarked for the extension of the Maddington Industrial area in the Maddington Kenwick Strategic Employment Area study of 2008. Therefore, development of the site could commence towards the end of 2011. The correspondence raised a number of issues that are addressed in the assessment (Coffey Environments 2009).

Lot 253 Clifford Street, Maddington is located within Precinct 1 of the Gosnells 'Maddington Kenwick Strategic Employment Area (MKSEA)' which was identified by the State Government in 1990 (through Metroplan) as a future strategic industrial area.

The City of Gosnells intend to request the Western Australian Planning Commission (WAPC) to initiate a Metropolitan Region Scheme Amendment for Precinct 1 - changing the zoning from Rural to Industrial.

In a submission the City of Gosnells advise that Lot 253 Clifford Street, Maddington is located within the MKSEA precinct which is still some time away (minimum of 18 months - 2 years) from being rezoned from rural to industrial under A Scheme Amendment. The City of Gosnells further advise that the use of Lot 253 for the parking of trucks would require Development Approval and to date, the City has not received any application from the proponent for Development Approval or Building Licence. TRIM Ref: DOC75623

Consideration was given to the various Flora and Vegetation Survey Reports prepared for Lot 253 Clifford Street Maddington by Weston (2008), Nuts About Natives (2008), Coffey Environmental (2007) and Cardno BSD (2006) when undertaking the assessment for this clearing application.

Methodology

References:
- DEC (2008)
- Cardno BSD (2006)
- Coffey Environments (2007)
- Coffey Environments (2009)
- Nuts About Natives (2008)
- Weston (2008)
-Submission, Direct Interest Submission, 4/02/2009, TRIM Ref: DOC75623

4. Assessor's comments

Comment

The assessable criteria have been addressed and the proposed clearing is at variance to Principle (a), (d), (e) and (f); and may be at variance to Principles (b) and (i).

5. References

Cardno BSD (2006) Excerpts for Lot 253 Clifford Street, Maddington from: Environmental Review, Maddington - Kenwick Strategic Industrial Area. Unpublished report. TRIM Ref: DOC76990.

Coffey Environments (2007) Environmental Issues on Lot 3 Kenwick Road, Lot 11 Bickley Road, and Lots 101 and 253 Clifford Street Maddington. Unpublished report. TRIM Ref: DOC76918.

Coffey Environments (2009) Response letter (dated 7 April 2009) to refusal letter sent 26 February 2009. CPS 2917/1 Lot 253 Clifford Street, Maddington. TRIM REF. DOC

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

DEC (2009) Site Inspection Report for Clearing Permit Application CPS 2917/1, Lot 253 Clifford Street, Maddington. Site inspection undertaken 17 February 2009. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC77040).

EPA (2006) Guidance for the Assessment of Environmental Factors - Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region. Guidance Statement No 10. Environmental Protection Authority, Western Australia.

Government of Western Australia (2000) Bush Forever Volumes 1 and 2. Western Australian Planning Commission, Perth WA.

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.

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.

Nuts About Natives (2008) Flora and Vegetation Survey of Lot 253 Clifford Street, Maddington, prepared for Mobile Dewatering Environmental Services - unpublished report.

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.

State of Western Australia (2005) Agmaps Land Manager CD Rom.

Submission, Direct Interest Submission for CPS2917/1, 4 February 2009, TRIM Ref: DOC75623.

Weston (2008) Flora and Vegetation of Lot 253 Clifford Street, Maddington. Excerpts from: C. Tauss and A.S. Weston (2008) The Flora, Vegetation and Wetland of the Maddington Kenwick Strategic Employment Area A Survey of the Rural Lands in the Vicinity of the Greater Brixton Street Wetlands. TRIM Ref: DOC75945.

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)