Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2081/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: CSBP Limited

1.3. Property details

Property: LOT 10 ON DIAGRAM 40330 (Lot No. 10 RAILWAY BAYSWATER 6053)

Local Government Area: City Of Bayswater

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
5.1		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
Heddle Vegetation Complex: Bassendean Complex-Central And/South (Heddle et al. 1980).	The application is to clear 5.1 ha on Lot 10 Railway Parade, Bayswater for future development. The property is zoned General Industry under the local Town Planning Scheme.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation clearing description based on site inspection (DEC, 2007).
Beard Vegetation Association: 1001: Medium very sparse woodland; jarrah, with low woodland; banksia & casuarina. (SAC Bio datasets, accessed 11/9/2009; Shepherd 2007)	The vegetation under application can be described as good to completely degraded (Keighery, 1994) condition; and has a high level of disturbance including past clearing, excavation and prolific weed invasion. The vegetation is best described in 3 sections: The western portion (~1.4 ha) is very open consisting predominantly of Eucalyptus sp. from the eastern states with the occasional marri, E. rudis and E. gomphocephala. Sections of the mid-storey are dominated by eastern states Tea Tree. The southern portion of the area under application associated with a dampland (~2.3 ha) is completely degraded and has a high percentage of weeds and limited native species diversity. Small populations of a native sedge sp. were observed in waterlogged areas.		
As above	The northern portion of the area under application (~0.8 ha) associated with a wetland is considered to be in a good to degraded condition with an over storey of Eucalyptus rudis, Melaleuca preissii over Pteridium esculentum (Bracken Fern) and pampas grass. Buffalo Grass is also present.	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 is not likely to be at variance to this Principle

The area under application is located within the City of Bayswater, an area that has been extensively cleared

with a current pre-European vegetation representation level of 1.7% remaining (Del Marco et al. 2004).

The majority of the vegetation under application is in completely degraded (Keighery, 1994) condition with a low diversity of native flora species due to a high level of disturbance including past clearing, excavation and prolific weed invasion (DEC, 2007). However, ~0.8 ha of the vegetation under application that is associated with the wetland is in good to degraded (Keighery, 1994) condition and best described as Eucalyptus rudis, Melaleuca preissii over Pteridium esculentum (Bracken Fern) and grass weeds including buffalo grass and pampas grass (DEC, 2007). The vegetation associated with the wetland may provide significant habitat for fauna in the local area including Quenda, snakes and small birds.

Although, the current representation level for the City of Bayswater is 1.7% and 0.8 ha of the vegetation under application is in an overall good (Keighery, 1994) condition, which may provide significant habitat for fauna in the local area; it is not considered the area under application would comprise a high level of biological diversity due to the limited flora diversity and the high level of disturbance.

Methodology

References:
- Del Marco et al. (2004)
- DEC (2007)

GIS Databases:
- Bushforever - MFP 07/01
- CALM Managed Lands and Waters
- Local Government Authorities
- Swan Coastal Plain Central 20cm Orthomosaic

(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

The area under application is located within the City of Bayswater, an area that has been extensively cleared with a current pre-European vegetation representation level of 1.7% remaining (Del Marco et al. 2004).

The majority of the vegetation under application is in completely degraded (Keighery, 1994) condition with low diversity of native flora species due to a high level of disturbance including past clearing, excavation and prolific weed invasion (DEC, 2007). However, ~0.8 ha of the vegetation that is associated with the wetland in the northern section of the area under application is in good to degraded (Keighery, 1994) condition (DEC, 2007).

Seven fauna species of conservation significance are known to occur within the local area (5km radius of the applied area), including Carnaby's Black-Cockatoo (Endangered) and the black-stripe snake (Priority 3). During a site inspection (DEC, 2007) a large number of avifauna were observed utilising the habitat within the applied area.

Given ~0.8 ha of the vegetation under application that is associated with the wetland is in good to degraded (Keighery, 1994) condition and the current pre-European vegetation representation level in the City of Bayswater is 1.7%, the vegetation under application may be considered significant habitat for avifauna and reptiles in an area that has been extensively cleared. Therefore, the proposed clearing may be at variance to this Principle.

Methodology

References:
- DEC (2007)
- Del Marco et al. (2004)

GIS Databases:
- SAC Bio datasets (Accessed 11/9/2009)

(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 records of rare flora within the area under application. There are four records of three rare flora species within the local area (5 km radius). Of these species it is considered that Caladenia huegelii and Macarthuria keigheryi may occur within the applied area as they occur in a similar vegetation complex and soil type.

Caladenia huegelii is known to occur ~3.2 km north of the applied area and prefers deep sandy soils in mixed woodland of Jarrah and Banksia and is suppressed by weed invasion (Brown et al. 1998). Given the distance, lack of woodland over storey, previous disturbance, and prolific weed invasion to this site, C. huegelii is not considered likely to occur in the area under application.

Macarthuria keigheryi is known to occur ~4.5 km south-east of the applied area and prefers low-lying winter

damp sands under Banksia and Kingia (Brown et al. 1998). Given the disturbance to the wetland area, which consists of a monoculture of grasses (DEC, 2007), it is not considered likely that this species would out compete the invasive grasses and therefore unlikely to occur in the area under application.

Given the above, the area under application is not considered likely to include or be necessary for the continued existence of rare flora and therefore not likely to be at variance to this Principle.

Methodology References:
- Brown et al. (1998)
- DEC (2007)

GIS Databases:
- Heddle Vegetation Complexes
- SAC Bio datasets (Accessed 11/9/2009)
- 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 records of Threatened Ecological Communities (TECs) within the local area (5 km radius). Two TECs, Floristic Community Type (FCT) 20b - 'Eastern Banksia attenuata and/or Eucalyptus marginata woodlands' and FCT 7 - 'Herb rich saline shrublands in clay pans' are known to occur ~5.5 km south east of the area under application.

Both floristic communities occur in different vegetation complexes and soil types to the area under application. In addition, the vegetation under application is in degraded to completely degraded (Keighery, 1994) condition with a low level of native species diversity consisting of the occasional Marri, E. rudis and Melaleuca species. Given the above, the vegetation under application is not considered to comprise whole or part of a TEC.

Methodology GIS Databases:
- Heddle Vegetation Complexes
- SAC Bio datasets (Accessed 11/9/2009)
- Soils, Statewide

(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**

The Heddle vegetation complex identified in the area under application is the Bassendean Complex-Central and South which has a current representation level of 27% remaining (Heddle et al 1980). The Beard Vegetation Association 1001 identified within the applied area has a current representation level of 25.3% within the Bioregion (Shepherd 2007).

The Environmental Protection Authority (EPA) supports a 30% threshold level as recommended in the National Objectives Targets for Biodiversity Conservation; below which species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000). The vegetation types under application retain less than this 30% threshold level.

Although these vegetation types have less then the recommended 30% minimum of Pre-European extent remaining, the applied area is considered to be within a constrained area. The EPA (2006) recognises the Perth Metropolitan Region as a 'constrained area', providing for the reduction of vegetation complexes to a minimum of 10% of the Pre-European extent. Both of the vegetation types under application retain more than 10%.

The majority of the area under application is highly disturbed with a low level of native species and is not considered representative of the Bassendean Central and South Complex or Beard Association 1001 (DEC, 2007). However, the area under application is located within the City of Bayswater which has a current pre-European representation level of 1.7% remaining, well below the 10% minimum. The vegetation associated with the wetland in the northern portion of the area under application (~0.8 ha) consists of Eucalyptus rudis, Melaleuca preissii and bracken fern in good to degraded (Keighery, 1994) condition (DEC, 2007) and may be considered significant as a remnant in the local area; therefore may be at variance to this Principle.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In reserves DEC Managed Land
IBRA Bioregions*				
Swan Coastal Plain (SCP)^	1,501,208	583,140	38.8	32.7
LGA**				
City of Bayswater	3,276	57	1.7	N/A

Heddle Vegetation Complex***				
Bassendean Complex-Central and\South	87,477	23,624	27.0	2
Beard Vegetation Type*				
1001 (within SCP)	57,410	14,545	25.3	4.8

* (Shepherd 2007)
** (Del Marco et al. 2004)
*** (EPA 2006)
^ Area within Intensive Land Use Zone

Methodology

References:
- Del Marco et al. (2004)
- EPA (2000)
- EPA (2006)
- Heddle et al (1980)
- Keighery (1994)
- Shepherd (2007)
- DEC (2007)

GIS Databases:
- Heddle Vegetation Complexes - DEP 21/06/95
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- SAC Bio datasets (Accessed 11/9/2009)
- Swan Coastal Plain Central 20cm Orthomosaic - DLI06

(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

The area under application is associated with a Resource Enhancement Wetland (REW). A REW is a priority wetland which may have been partially modified but still supports substantial ecological attributes and functions (WRC, 2001). It is considered any development within 50m the boundary of a wetland can critically influence the wetland (Hill et al. 1996).

The northern portion of the area under application (~0.8 ha) comprises of wetland dependant vegetation including Eucalyptus rudis, Melaleuca preissii and Bracken Fern. The southern portion of the applied area supports native sedges (DEC, 2007). A Wetland Evaluation Report for Lot 10 Railway Parade, prepared by Parsons Brinckerhoff Australia (2008) recognises the wetland in the northern portion of the area under application as being in good to degraded condition and worthy of conservation.

Given the applied area is within the recommended 50m buffer to a wetland and includes wetland dependant vegetation, the proposed clearing is considered to be at variance to this Principle.

Methodology

References:
- DEC (2007)
- Hill et al. (1996)
- Parsons Brinckerhoff Australia Pty Ltd (2008)
- WRC (2001)

GIS Databases:
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC
- 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

Soils within the applied area are part of the Bassendean Dune System, which generally comprise leached grey sands (Northcote et al. 1968). These sandy soils have a high risk of wind erosion and a low risk of water erosion due to the high infiltration rates associated with sands.

The majority of the area under application has a low risk of salinity. The salinity risk increases in the low lying areas and associated wetlands. Given the low risk of salinity and the low native species density within the area under application, the proposed clearing is not considered likely to contribute to an increase in salinity.

The proposed clearing has a high risk of wind erosion given the sandy associated with the area under application. Without appropriate management of exposed surfaces the proposal may cause appreciable land degradation and may be at variance to this Principle.

It is noted that in the subdivision concept plans for Lot 10, CSBP (2007) propose to fill in the wetlands and low lying areas on the site to prepare them for future industrial development and the appropriate management practices such as dust suppression and the installation of bituminised surfaces would likely limit land degradation caused by wind erosion.

Methodology

References:
- CSBP (2007)
- Northcote et al. (1968)

GIS Databases:
- Salinity Risk LM 25m
- Soils, Statewide

(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 10 Bush Forever sites within the local area. The closest is Bush Forever site 214 (Ashfield Flats, Bassendean/Ashfield) located ~1.4 km south-east, adjacent to the Swan River. The closest DEC managed conservation area is Crown Reserve 44853 (~2.4 ha) on the corner of Beechboro Rd and Marshall Rd in Beechboro (~6 km north).

The area under application is surrounded by general industry and urban development. There are no continuous ecological linkages between the area under application and any other vegetated remnants in the local area. Given the lack of ecological linkages and the distance to the nearest conservation areas it is not considered likely that the proposed clearing would have an impact on the environmental values of these areas.

Methodology

GIS Databases:
- Bushforever
- CALM Managed Lands and Waters
- Swan Coastal Plain Central 20cm Orthomosaic - DLI06
- Swan Coastal Plain North 20cm Orthomosaic - DLI06

(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 at variance to this Principle

Groundwater salinity associated with the area under application ranges from 500 - 1000mg/L. The majority of the area under application has a low risk of salinity. The salinity risk increases in the low lying areas and associated wetlands. Given the low native species density and therefore limited clearing of native vegetation within the area under application, the proposed clearing is not considered likely to contribute to an increase in surface or groundwater salinity.

The closest major watercourse is the Swan River ~1.8 km south of the area under application. The area under application is located within the Bayswater Main Drain sub-catchment on the Swan Coastal Plain. The Bayswater Main Drain, a tributary of the Swan River, occurs along the south and west boundaries of the property under application. It is noted that contaminated groundwater treated onsite is discharged and monitored in the Bayswater Main Drain as per Ministerial Remediation Conditions (DEC, 2007).

The area under application is associated with a Resource Enhancement Wetland (REW). A REW is a priority wetland which may have been partially modified but still supports substantial ecological attributes and functions (WRC, 2001). It is considered any development within 50m the boundary of a wetland can critically influence the wetland (Hill et al. 1996). Given the area under application is within the area mapped as a REW it is considered likely that the proposed clearing will cause a deterioration in the water quality of the wetland and is therefore at variance to this Principle.

Methodology

References:
- DEC (2007)
- Hill et al. (1996)
- WRC (2001)

GIS Databases:
- Groundwater Salinity, Statewide
- Hydrographic Catchments - Subcatchments
- Hydrography, linear

- Salinity Risk 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

Soils within the applied area are part of the Bassendean Dune System, which generally comprises leached grey sands (Northcote et al. 1968). Given the free draining nature of the soils and the low native species density and therefore limited clearing of native vegetation within the area under application, the proposed clearing is not considered likely to cause or exacerbate the incidence of flooding.

Methodology

References:
- Northcote et al. (1968)

GIS Databases:
- Hydrography, linear
- Soils, Statewide

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

Comments

The Department sent a letter to the applicant on the 13 August 2009. A response letter and Wetland Evaluation Report was received from the applicant on 9 September 2009. The applicant's summary response was:
- The portion of the area under application that is classified as a resource enhancement wetland is dislocated from other vegetated areas and is in degraded to completely degraded condition.
- A flora survey of the area under application defined six vegetation units and recommended that Area A [northern wetland area] be reclassified as a multiple use wetland and the other wetland areas be declassified.

In addition, the applicant advised that subdivision approval is not expected until at least 2010/2011.

The area under application is associated with a Class 1 Acid Sulphate Soils (ASS) risk. A Class 1 ASS risk is defined as having a high to moderate risk of ASS occurring within 3 m of natural soil surface that could be disturbed by most land development activities. It is noted that in the subdivision concept plans for Lot 10 CSBP (2007) propose to fill in the wetlands and low lying areas on the site to prepare them for future industrial development which may limit land degradation caused by ASS.

Lot 10 is freehold land and is zoned General Industry under the Town Planning Scheme and zoned Industrial under the Metropolitan regional Scheme.

Draft subdivision concept plans for the development of Lot 10 have been submitted to the City of Bayswater and Town of Bassendean (CSBP, 2007). Subdivision approval has not yet been granted.

As a result of previous land use, Lt 10 Railway Parade has been reported as a contaminated site. There is a memorial on the Certificate of Title and under the Contaminated Sites Act 2003 Lot 10 Railway Parade has been classified as 'Contaminated - Remediation Required'. Any instrument affecting land which comprises all or part of this site will not be registered unless the DEC's CEO consents to the registration in writing. DEC is working with the current land owners to remediate the site which involves excavation and disposal of contaminated soils and extraction and treatment of contaminated groundwater. Remedial works and validation investigations have not yet been finalised.

CSBP have submitted an application with DEC's Wetlands Branch to have the Resource Enhancement Wetland (REW) on Lot 10 re-assessed and re-classified. To date, the re-assessment of the REW has not been finalised.

There is no other RIWI Act Licence or EP Act Licence that affects the area under application.

Methodology

References:
- CSBP (2007)

GIS Databases:
- Acid Sulfate Soil Risk Map, Swan Coastal Plain
- Cadastre
- Metropolitan Regional Scheme
- Town Planning Scheme Zones

4. Assessor's comments

Comment

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

5. References

Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.

CSBP (2007). Draft Subdivision Concept Plans for Lot 10 Railway Pde. (TRIM Ref: DOC39045)

DEC (2007) Site Inspection Report for Clearing Permit Application CPS 2081/1, Lot 10 Railway Parade, Bayswater. Site inspection undertaken 26/10/2007. Department of Environment and Conservation, Western Australia. (TRIM Ref: DOC38485)

Del Marco, A., Miles, C., Taylor, R., Clarke, K. and Savage, K. (2004) Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region - Edition 1. Western Australian Local Government Association, West Perth.

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, Western Australia.

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.

Gibson N., Keighery B., Keighery G., Burbidge A. and Lyons M. (1994). A Floristic Survey of the Southern Swan Coastal Plain. Western Australian Department of Conservation and Land Management and the Western Australian Conservation Council.

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.

Hill, A.L., Semenuik, C. A, Semenuik, V. Del Marco, A. (1996) Wetlands of the Swan Coastal Plain. Volume 2b, Wetland mapping, classification and evaluation. Wetland Atlas. WRC and DEP. Perth WA.

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.

Parsons Brinckerhoff Australia Pty Ltd (2008). Wetland Evaluation - CSBP, Lot 10 Railway Parade, Bayswater. (TRIM Ref: DOC58181)

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.

Water and Rivers Commission (2001). Position Statement: Wetlands, Water and Rivers Commission, Perth.

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)