



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 3806/1
File Number: 20384
Duration of Permit: From 7 March 2011 to 7 March 2013

PERMIT HOLDER

Carey Baptist College Inc

LAND ON WHICH CLEARING IS TO BE DONE

Lot 9005 on Deposited Plan 57667

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.835 hectares of native vegetation within the area hatched yellow on attached Plan 3806/1.

CONDITIONS

1. Vegetation management

- (a) Within three months of the commencement of clearing, the Permit Holder shall construct a fence enclosing the area outlined in red on attached Plan 3806/1 to prevent uncontrolled access.
- (b) Within one month of installing the fence the Permit Holder shall notify the CEO in writing that the fence has been completed.

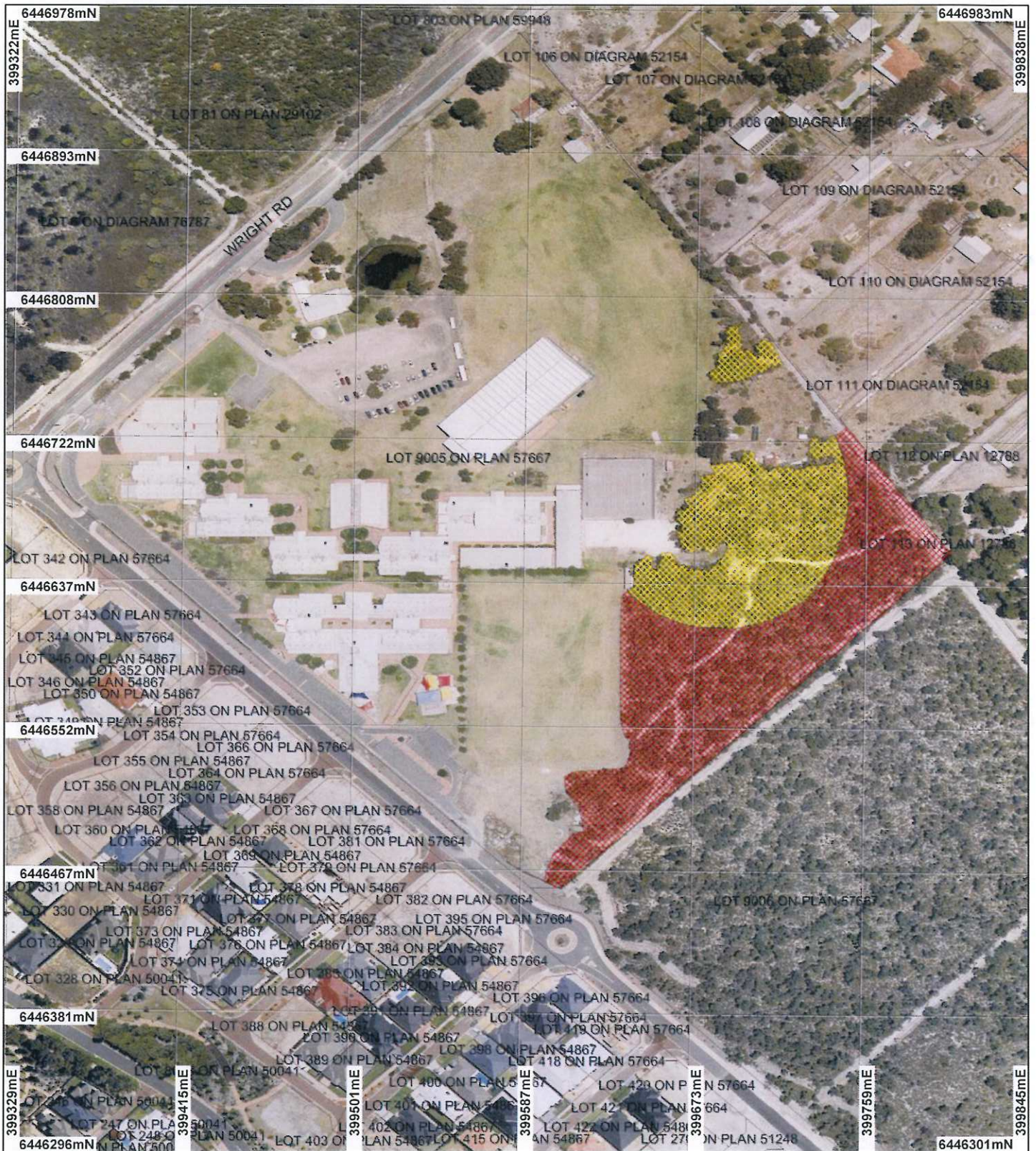
A handwritten signature in black ink, appearing to read "K Faulkner", written over a horizontal line.

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

10 February 2011

Plan 3806/1



LEGEND

- Cadastre for labelling
- Clearing Instruments
- Swan Coastal Plain Central
20cm Orthomosaic - Landgate
2009
- Areas Subject to Conditions
- Areas Approved to Clear
- Road Centrelines
- Local Government Authorities



0 ————— 75 m

Scale 1:3023

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

[Signature] Date 10/2/11
K Faulkner

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation

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1. Application details

1.1. Permit application details

Permit application No.: 3806/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Carey Baptist College Incorporated

1.3. Property details

Property: LOT 9005 ON PLAN 57667 (House No. 51 WRIGHT HARRISDALE 6112)
Local Government Area:
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 10 February 2011

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: 1001 - Medium very sparse Woodland; Jarrah, with low woodland; Banksia & Casuarina.	The application is to clear 0.835 hectares of native vegetation in very good to excellent (Keighery, 1994) condition for the purpose of the development of a sports oval.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The vegetation clearing description and condition were determined from aerial orthomosaics and from a site inspection (DEC, 2010a).
Hedde Complex: Southern River Complex - Open woodland of <i>Corymbia calophylla</i> (Marri) - <i>Eucalyptus marginate</i> (Jarrah) - Banksia species with fringing woodland of <i>Eucalyptus rudis</i> (Flooded Gum) - <i>Melaleuca raphiophylla</i> (Swamp Paperbark) along creek beds.	Areas of vegetation in excellent condition were restricted to vegetation south of central access track and pockets of vegetation in the area north of the central access track.		
	Areas of vegetation in very good condition were predominantly in areas of vegetation located north of central access track.	Very Good: Vegetation structure altered; obvious signs of disturbance (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 may be at variance to this Principle**
The proposed clearing of native vegetation is to accommodate an oval at the Carey Baptist College. The vegetation under application is described as Banksia woodland over shrubland in very good to excellent (Keighery, 1994) condition (DEC, 2010a). The vegetation includes *Eucalyptus todtiana*, *Banksia attenuata*, *B. menziesii*, *B. illicifolia*, *Allocasuarina fraseriana*, *Nuytsia floribunda* over a dense understorey comprising *Hibbertia hypericoides*, *Hibbertia huegelii*, *Hibbertia racemosa*, *Amphipogon turbinatus*, *Philothea spicata*,

Eremaea spp, Gompholobium tomentosum, Stylium repens, Burchardia spp, Leucopogon spp, Phlebocarya spp, Conostylis spp, Lyginia barbata/imberbis, Petrophile linearis, Calytrix fraseri, Patersonia occidentalis, Dasyogon bromeliifolius, Stirlingia latifolia, Melaleuca spp, Pterostylis sanguine, Macrozamia riedlei, Conostephium pendulum, Allocasuarina humilis, Hovea trisperma, Thysanotus spp, two species of Drosera and 5 species of Lomandra. The dense understory is likely to provide suitable habitat for a range of ground dwelling fauna, including Quenda, snakes and lizards. Five species of Lomandra (including L. hermaphrodita) observed within the area under application also indicate the area may contain habitat for the Graceful Sun Moth (Synemon gratiosa, Endangered). However, a targeted Lomandra survey of the application area was undertaken and noted that the density of Lomandra within the application area is very low (Natural Area Consulting, 2010) compared to the remainder of Lot 9005 and therefore not significant.

The area under application is located within close proximity (~50m) to a significant Carnaby's black cockatoo (Calyptorhynchus latirostris) (Endangered, EPBC Act; Threatened fauna Wildlife Conservation Act 1950) roost site. Given the identified roost site supports between 50 -100 Carnaby's black cockatoos, the vegetation under application is considered to be significant feeding habitat for this species (DEC, 2010d). The applicant has proposed to protect the remaining vegetation not under application.

Within the local area (10km radius) there are 8 records of rare flora species, 4 of which occur in the same vegetation complex and soil type to that found within the area under application. Of the identified rare flora species, only Caladenia huegelii is considered to have the potential to occur on site (DEC, 2010b). In addition, there are 15 species of priority flora found within the same vegetation complex and soil type to that found on site, the closest being Austrostipa juncifolia (P1) which is located approximately 1.2km from the area under application. A targeted flora survey for C. huegelii and other rare and priority flora did not record any specimens (Natural Area Consulting, 2010).

Furthermore, the flora species Blancoa canescens which was observed on site (DEC, 2010a) is listed as 'Significant Flora', due to this species being poorly conserved south of the Swan river (Government of Western Australia, 2000).

Given that the vegetation under application is adjacent to vegetation that may include suitable habitat for the Graceful Sun Moth, includes significant feeding habitat for Carnaby's black cockatoo and included locally significant taxa, the vegetation applied to be cleared may be considered to comprise a high level of biological diversity.

Therefore the clearing as proposed may be at variance to this Principle.

Methodology	References: <ul style="list-style-type: none">- DEC (2010a)- DEC (2010b)- DEC (2010c)- DEC (2010d)- DEC (2010e)- Government of Western Australia (2000)- Keighery (1994)- Natural Area Consulting (2010) GIS Databases: <ul style="list-style-type: none">- SAC Bio Datasets (16/07/2010)
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(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 at variance to this Principle

The proposed clearing of native vegetation is to accommodate an oval at the Carey Baptist College.

The vegetation under application is described as Banksia woodland over shrubland in very good to excellent (Keighery, 1994) condition (DEC, 2010a). There are 12 fauna species of conservation significance which have been recorded within the local area (10km radius) being the Carnaby's black cockatoo (Calyptorhynchus latirostris, Endangered, EPBC Act; Threatened fauna Wildlife Conservation Act 1950), Forest Red-tailed black cockatoo (Calyptorhynchus banksii naso, Vulnerable), Numbat (Myrmecobius fasciatus, Vulnerable), Bee (Leioproctus douglasiellus, Endangered), Chuditch (Dasyurus geoffroi, Vulnerable) Quenda (Isodon obesulus fusciventer, P5), Western Brush Wallaby (Macropus irma, P4), Water Rat (Hydromys chrysogaster, P4), Lined Skink (Lerista lineata, P3), Bee (Leioproctus contrarius, P3) and the Cricket (Throscodectes xiphos, P1), the closest being the Carnaby's black cockatoo which was recorded approximately 50m from the applied area.

The dense vegetation under application is likely to provide suitable habitat for a number of ground dwelling fauna species such as the Quenda, snakes, lizards and local foraging bird species, however, given the small size (1.5ha) the applied area is unlikely to provide significant habitat for the Numbat and Western Brush Wallaby.

In addition, during the site inspection (DEC, 2010a) 5 species of Lomandra (including L. hermaphrodita) were

observed within the area under application. The larvae of the Graceful Sun Moth (*Synemon gratiosa*, Endangered) are host specific, feeding predominantly on the roots of *Lomandra hermaphrodita*. A targeted survey of *L. hermaphrodita* recorded a very low density of this species within the application area, therefore the vegetation under application is unlikely to be significant habitat for the Graceful Sun Moth (Natural Area Consulting, 2010).

The area under application consists of Banksia woodland in very good to excellent (Keighery, 1994) condition (DEC, 2010a) and is located approximately 50m from a Carnaby's black cockatoo roost site. These birds inhabit uncleared or remnant Eucalyptus and Banksia woodlands and coastal scrub foraging on the seeds and nectar from flowers of Eucalypts, Banksia, Grevillea and Hakea species (Burbidge, 2004), with chewed Banksia cones observed within the applied area (DEC, 2010a). The Carnaby's will forage extensively within a 12-15km radius of a known roost site and if there is less than 30% native vegetation cover across the landscape within this 15km radius, each remaining patch of feeding habitat is more likely to be a significant food source (DEC, 2010f). The loss of the vegetation under application is likely to impact on the roosting Carnaby's (DEC, 2010d) and DEC (2010e) as the under application is part of their feeding habitat.

The area was amended from 1.51ha to 0.835ha to reduce the impacts on the Carnaby's black cockatoo. To reduce impacts on the remaining native vegetation on Lot 9005, the area is to be fenced and the applicant has advised the remaining native vegetation on this lot will be protected.

Methodology

References:

- Burbidge (2004)
 - DEC (2010a)
 - DEC (2010b)
 - DEC (2010c)
 - DEC (2010d)
 - DEC (2010f)
 - Keighery (1994)
 - Natural Area Consulting (2010)
- ##### GIS Databases:
- SAC Bio Datasets (16/07/2010)

(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

Eight rare flora species have been recorded within the local area (10km radius) including *Caladenia huegelii*, *Diuris purdiei*, *Drakaea elastica*, *Lepidosperma rostratum*, *Drakaea micrantha*, *Eremophila glabra* subsp. *chlorella*, *Eleocharis keigheryi* and *Thelymitra stellata*; the closest of which *Caladenia huegelii* is located approximately 210m from the area under application. Of the identified rare flora species, only *C. huegelii*, *D. purdiei*, *D. elastica* and *L. rostratum* are found within the same vegetation complex and soil type to that found on site.

Caladenia huegelii flowers in September-October and is generally found in deep sandy soils in Banksia and Eucalyptus woodlands, favouring areas of lush undergrowth (Brown et al. 1998). During the site inspection (DEC, 2010a) *Caladenia* spp, seedlings and other orchid species were observed within the area under application. Given this, *C. huegelii* is considered to have the potential to occur on site (DEC, 2010b). However, a targeted flora survey for *C. huegelii* did not identify any specimen within the application area (Natural Area Consulting, 2010)

However, DEC (2010b) advise that due to habitat disturbance and weed invasion in the areas of *Kunzea*, it is unlikely that *Drakaea elastica* would be present on site, and given that *Diuris purdiei* and *Lepidosperma rostratum* prefer winter-wet swamps (Western Australia Herbarium, 1998) are highly unlikely to be present in the applied area.

Given the above the proposed clearing is unlikely to be at variance to this principle.

Methodology

References:

- Brown (1998)
 - DEC (2010a)
 - DEC (2010b)
 - Natural Area Consulting (2010)
 - Western Australian Herbarium (1998-)
- ##### GIS Databases:
- SAC Biodatasets - accessed on 16/07/2010

(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 4 known records of Threatened Ecological Communities (TEC) within the local area (10km radius). The closest TEC is located approximately 2.4km southwest of the area under application and has been identified as Muchea Limestone - Shrublands and woodlands on Muchea Limestone.

Although this TEC is found within the same vegetation complex and soil type to that found on site, given the distance and that the soils under application are described as leached sands (Northcote et al, 1968), it is unlikely that the vegetation under application comprises or is necessary for the maintenance of a Threatened Ecological Community.

Methodology

References:

- Northcote et al (1968)
- GIS Database:
- Pre-European Vegetation
- SAC Bio datasets accessed 16/07/2010
- Soils, Statewide DA 11/99

(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 described as Beard vegetation association 1001 of which there is 24.58% of pre-European extent remaining in the Bioregion (Shepherd, 2009). The vegetation is also mapped as being part of the Hedde vegetation complex Southern River (Hedde et al, 1980), of which 17.2% of this complex remained within the Perth Metropolitan Region in 1998 (Government of Western Australia, 2000).

The area under application is located within the City of Armadale, within which there is 77.0 % of pre-European extent remaining (Shepherd, 2009).

Within constrained areas (ie. areas of urban development in cities and major towns) on the Swan Coastal Plain the target for representation of the pre-clearing extent of a particular native vegetation complex is 10% (Commonwealth of Australia, 2001). As the vegetation under application is within a local area retaining approximately 25% native vegetation and is representative of vegetation types with more than the 10% threshold, the applied area is not considered to be a significant remnant within an extensively cleared landscape.

Therefore the clearing as proposed is not likely to be at variance to this Principle.

	Pre-European (ha)	Current extent (ha)	Remaining (%)
IBRA Bioregions*			
Swan Coastal Plain^	1,501,209	587,889	39.16
Shire*			
City of Armadale	55,918	43,155	77.0
Hedde Vegetation Complex**			
Southern River Complex	31,148	5,370	17.2
Beard Vegetation Association*			
1001	57,410	14,111	24.58

* Shepherd (2009)

** Government of Western Australia (2000)

^ Area within Intensive Land Use Zone

Methodology

References:

- Commonwealth of Australia (2001)
- Government of Western Australia (2000)
- Hedde et al (1980)
- Shepherd (2009)
- GIS Database:
- NLWRA, Current Extent of Native Vegetation
- Pre-European Vegetation - DA 10/01
- Swan Coastal Plain Central 20cm Orthomosaic - Landgate 2009

(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 wetlands or watercourses mapped within the vegetation under application. However, there are numerous wetlands located within a 10km radius of the area under application, the closest Conservation Category Wetland and Resource Enhancement Wetland are respectively located approximately 300m northwest and 200m south of the applied area. In addition, the nearest Environmental Protection Policy (EPP) Lake and Australian Nature Conservation Agency (ANCA) Wetland are located approximately 600m east and 190m east of the area under application.

The nearest watercourse is the Forestdale Main Drain which is located approximately 2.3km east of the area under application.

Given the distance to the nearest wetland and watercourse, the vegetation under application is not considered to be growing in, or in association with, an environment associated with a watercourse or wetland.

Therefore the clearing as proposed is not likely to be at variance to this Principle.

The nearest watercourse is the Forestdale Main Drain which is located approximately 2.3km east of the area under application.

Given the distance to the nearest wetland and watercourse, the vegetation under application is not considered to be growing in, or in association with, an environment associated with a watercourse or wetland.

Therefore the clearing as proposed is not likely to be at variance to this Principle.

Methodology

GIS Databases:

- ANCA, Wetlands
- EPP, Lakes
- Geomorphic Wetlands (Classification), Swan Coastal Plain
- Hydrography, linear (hierarchy)

(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

The chief soils within the area under application area are described as leached sands (Northcote et al, 1968). Generally these 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 applied area is associated with a moderate risk of salinity.

The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be wind erosion. The wind erosion potential is due to the sandy nature of the soil and without appropriate vegetation cover, windbreaks or adequate dust suppression on exposed surfaces the proposal may result in appreciable land degradation. However, given that the proposal is for the purpose of establishing a school oval and the surface will be grassed; this will minimise the risk of wind erosion.

Given the above, the proposed clearing may be at variance to this Principle.

Methodology

Refereneces:

- Northcote et al (1968)
- GIS Databases:
- Hydrography, linear - DOW 13/7/06
 - 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

The area under application is located within Land for Wildlife site 1315 which was registered by the Carey Baptist College in 2002 for environmental educational purposes. However, it should be noted that Land for Wildlife is a voluntary scheme that aims to encourage and assist private landholders in Western Australia to provide habitats for wildlife on their property, even though the property may be managed primarily for other purposes.

There are numerous areas reserved for conservation purposes within a 10km radius of the area under application, the closest being Bush Forever sites 253 (Harrisdale Swamp and Adjacent Bushland) and Bush

Forever site 413 (Balannup Lake and Adjacent Bushland) which form part of the Jandakot Regional Park which is situated approximately 290m west of the applied area.

Given the distance to the nearest conservation area and that the vegetation under application does not form part of a corridor linkage to the identified reserves, the vegetation under application is not likely to have an impact on the environmental values of any adjacent or nearby conservation areas.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Databases:
- Bushforever
- CALM Regional Parks
- DEC Tenure

(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 closest watercourse is the Forestdale Main Drain which is located approximately 2.3km east of the area under application and the closest wetlands are a Resource Enhancement Wetland and a Australian Nature Conservation Agency (ANCA) Wetland which are respectively located approximately 200m south and 190m east of the applied area. The area under application is situated within the SwanAvon-Canning River Catchment, but is not located within a Public Drinking Water Source Area (PDWSA).

Given the limited size (0.835ha) of the area under application, the distance to the nearest watercourse and that the vegetation under application is not associated with a surface water expression, the clearing as proposed is not considered likely to cause a deterioration in the quality of surface and/or underground water.

Therefore the clearing as proposed is not likely to be at variance to this Principle.

Methodology GIS Databases:
- Geomorphic Wetlands (Classification), Swan Coastal Plain
- Hydrographic Catchments - Catchments - DOW - 01/06/07
- Hydrography linear (hierarchy) - DoW 13/7/06
- Public Drinking Water Source Areas (PDWSAs)

(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 is located approximately 2.3km west of the Forestdale Main Drain and approximately 200m north of a Resource Enhancement Wetland, at an elevation of 25-30 metres.

Given the distance to the nearest wetland and watercourse and the high infiltration of the soils on site, it is unlikely that the proposed removal of vegetation would impact on peak flood height or duration.

Methodology GIS Databases:
- Geomorphic Wetlands (Classification), Swan Coastal Plain
- Hydrography linear (hierarchy) - DoW 13/7/06
- Topographic Contours, Statewide

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

Comments

Lot 9005 is zoned is zoned Urban under the Metropolitan Regional Scheme.

The application to clear for the purpose of the development of a school oval as part of the upgrade of the existing Carey Baptist College. The proponents have reduced the area to be cleared from 1.51ha to 0.835ha to reduce the impacts on Carnaby's black cockatoo and have agreed to fence the surrounding native vegetation.

The City of Armadale advised that planning approval for the Carey Baptist College school oval (165m x 135m) was granted on 9 June 2010. However, Condition 3 of the approval states that "with the exception of the clearing required for the sporting oval, all other remnant vegetation on site shall be retained and shall be protected from damage prior to and during construction of the oval to the satisfaction of the Executive Director Development Services". The applicant has revised the oval position and therefore needs to apply for planning consent again. A new application has not yet been submitted.

The area under application is located within Land for Wildlife site 1315 which was registered by the Carey Baptist College in 2002 for environmental educational purposes. However, it should be noted that Land for Wildlife is a voluntary scheme that aims to encourage and assist private landholders in Western Australia to

provide habitats for wildlife on their property, even though the property may be managed primarily for other purposes.

There are no Aboriginal Sites of significance within the area under application.

Methodology

References:

- City of Armadale (2010)

GIS Databases:

- Metropolitan Regional Scheme

- Town Planning Scheme Zones

4. References

- Brown A., Thomson-Dans C. and Marchant N. (1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- Burbidge, A. (2004) Threatened Animals of Western Australia, Department of Conservation and Land Management, Perth, Western Australia.
- City of Armadale (2010) Direct interest submission for CPS 3806/1 - Carey Baptist College Inc. (DEC ref A319666).
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2010a) Site Inspection Report for Clearing Permit Application CPS 3806/1, Carey Baptist College Inc. Site inspection undertaken 19 July 2010. Department of Environment and Conservation, Western Australia (DEC ref. A323934).
- DEC (2010b) Biodiversity advice for land clearing application. Flora Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Environment and Conservation, received 27 July 2010, Department of Environment and Conservation, Western Australia (DEC ref. A21488).
- DEC (2010c) Biodiversity advice for land clearing application. Fauna Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Environment and Conservation, received 16 July 2010, Department of Environment and Conservation, Western Australia (DEC ref. A318236).
- DEC (2010d) Biodiversity advice for land clearing application. Fauna Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Environment and Conservation, received 28 July 2010, Department of Environment and Conservation, Western Australia (DEC ref. A321490).
- DEC (2010f) Biodiversity Advice. Carnaby's black-cockatoo Advice to Assessing Officer, Native Vegetation Assessment Branch, received 26/03/2010 for Clearing Application CPS 3611/1. Department of Environment and Conservation, Western Australia (TRM DOC124474).
- Government of Western Australia (2000) Bush Forever Volumes 1 and 2. Western Australian Planning Commission, Perth WA.
- Hedde, 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.
- Natural Area Consulting (2010). Declared rare flora (DRF) and Lomandra hermaphrodita survey. Carey Baptist College, Lot 9005 Wright Road Harrisdale. December 2010.
- 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. (2009) 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.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 16/7/2010)

5. 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)