



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 5598/1
File Number: 2011/000378
Duration of Permit: From 10 August 2013 to 10 August 2015

PERMIT HOLDER

Peter Colin Ansell
Beverley Dawn Ansell

LAND ON WHICH CLEARING IS TO BE DONE

Lot 1892 on Deposited Plan 115764, Neergabby

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 5 hectares of native vegetation within the area hatched yellow on attached Plan 5598/1.

CONDITIONS

1. Dieback and weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

2. Native vegetation conservation (conservation covenant)

- (a) In respect to the area hatched red on attached Plan 5598/1, the Permit Holder shall enter into a conservation covenant, agreement to reserve or some other form of binding undertaking to maintain native vegetation.
- (b) The conservation covenant, agreement to reserve or some other form of binding undertaking to maintain native vegetation shall include, but not be limited to, the following conditions:
 - (i) native vegetation in the area subject to the conservation covenant, agreement to reserve or some other form of binding undertaking to maintain native vegetation must not be cleared, other than for clearing required under the *Bush Fires Act 1954*;
 - (ii) the land subject to the conservation covenant, agreement to reserve or some other form of binding undertaking to maintain native vegetation shall not be used for the purpose of cultivation of crops or pasture; and
 - (iii) the conservation covenant, agreement to reserve or some other form of binding undertaking to maintain native vegetation is to apply in perpetuity and be registered on the Certificate of Title of the property.
- (c) The Permit Holder is to execute and return the conservation covenant, agreement to reserve or some other form of binding undertaking outlined in condition 2(a) of this permit before 4 January 2014.

3. Records to be kept

The Permit Holder must maintain the following records in relation to native vegetation conservation covenant pursuant to condition 2 of this Permit:

- (a) within one month of executing and returning the conservation covenant, agreement to reserve or other form of binding undertaking the Permit Holder shall notify the CEO in writing that the conservation covenant, agreement to reserve or other form of binding undertaking has been completed.

4. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 3 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 10 May 2015, the Permit Holder must provide to the CEO a written report of records required under condition 3 of this Permit where these records have not already been provided under condition 4(a) of this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

dieback means the effect of *Phytophthora* species on native vegetation;

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

fill means material used to increase the ground level, or fill a hollow;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

weed/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in the Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned.

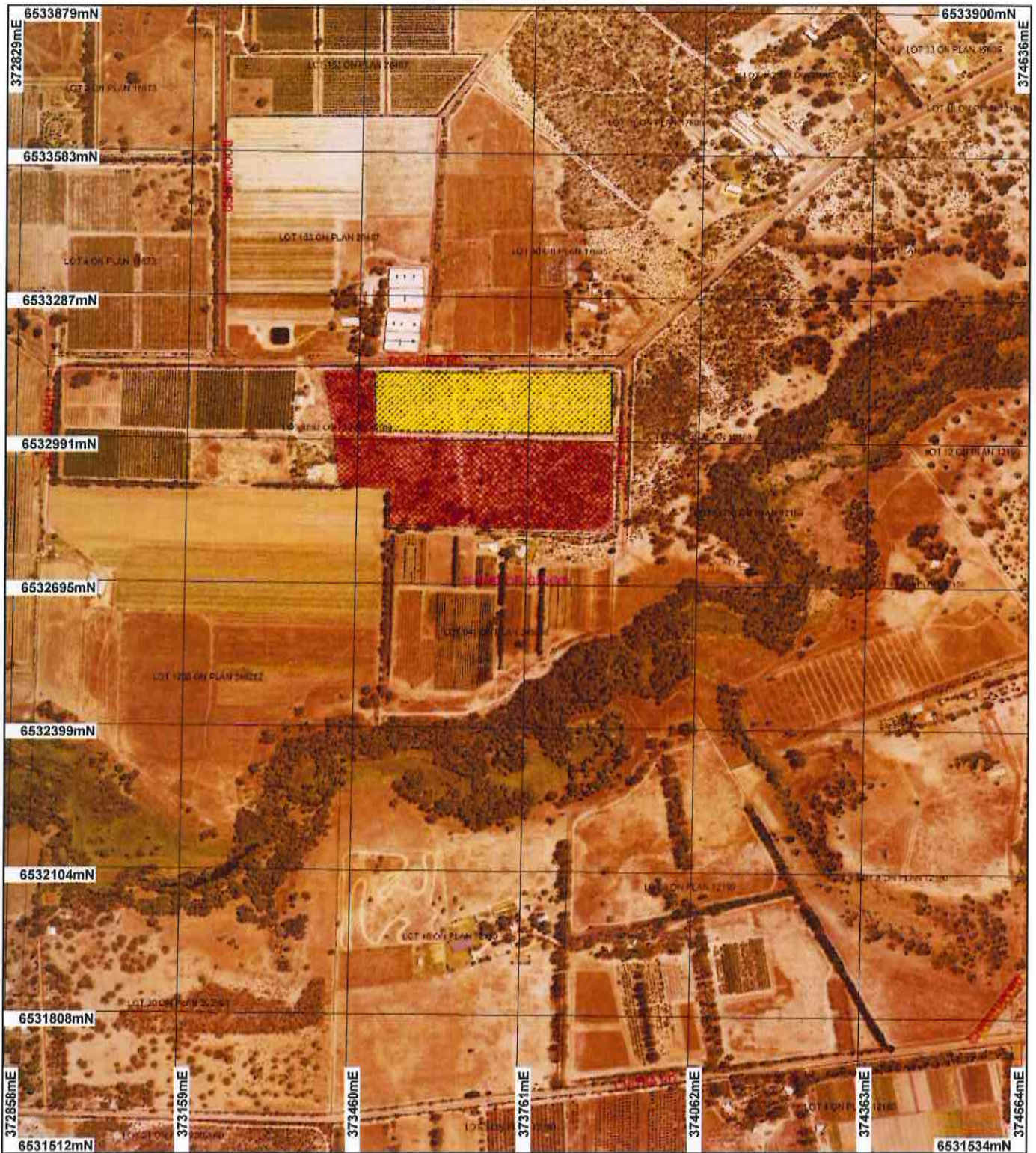
B. Walker

B Walker
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

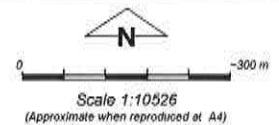
11 July 2013

Plan 5598/1



LEGEND

- Road Centrelines
- Cadastre
- Local Government Authorities Clearing Instruments
- Areas Subject to Conditions (cont)
- Areas Approved to Clear
- Perth Metropolitan Area North 15cm Orthomosaic - Landgate 2012



Geocentric Datum Australia 1994

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

B. Walker Date *11/7/12*
 B. Walker

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.: 5598/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Peter Colin and Beverley Dawn Ansell

1.3. Property details

Property: LOT 1892 ON PLAN 115764 (House No. 201 DOOLING NEERGABBY 6503)
Local Government Area: Shire of Gingin
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 4 July 2013

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
The area under application has been mapped Beard Vegetation Associations 1014 and 1008.	The applicant proposes to clear 5 hectares of native vegetation for the purpose of expanding an existing citrus orchard.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition of the vegetation was determined via a site inspection conducted by Department of Environment and Conservation (DEC) officers in May 2013 (DEC, 2013).
1014: Mosaic: Low woodland; banksia/shrublands; teatree thicket.	The application area is dominated by four species, being; <i>Banksia attenuata</i> , <i>Eucalyptus todtiana</i> , <i>Xanthorrhoea preissii</i> and <i>Mesomelaena</i> sp. Other species observed in small numbers include; <i>Nuytsia floribunda</i> , <i>Macrozamia</i> sp., <i>Allocasuarina</i> sp., <i>Banksia grandis</i> (DEC, 2013).		
1008 Medium open woodland; marri. (Shepherd et al. 2001)	The area is very open with little groundcover. Weeds were only observed close to fire breaks around the boundary of the property. <i>Banksias</i> were in a very poor condition (DEC, 2013).		

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 applicant proposes to clear five hectares of native vegetation within Lot 1892 on Deposited Plan 115764, Neergabby, for the purpose of expanding an existing citrus orchard.

The application area is dominated by four species, being; *Banksia attenuata*, *Eucalyptus todtiana*, *Xanthorrhoea preissii* and *Mesomelaena* sp.

The closest priority ecological community (PEC) is located approximately three kilometres south east of the application area. The common name of this PEC is 'Swan Coastal Plain *Banksia attenuata* - *Banksia menziesii* woodlands'. This PEC is quite rare and extends from Melaleuca Park to the Gingin area. It is possible for this community to occur within the application area however it mainly occurs on the Bassendean landform unit, whereas the area under application is located on the northern Karrakatta soil unit (DEC, 2011).

Four priority flora species have been mapped in the local area (10 kilometres radius), three of which grow in association with winter wet flats. The fourth priority species has been recorded 6.5 kilometres south west of the application on different soil and vegetation types. Considering the above, the application area is not likely to support priority flora which has been identified within the local area.

Three conservation significant fauna species have been recorded in the local area (10 kilometre radius) being; Carnaby's cockatoo (*Calyptorhynchus latirostris* (rare or likely to become extinct under the Wildlife Conservation Act 1950)), Western Brush Wallaby (*Macropus irma* (Priority 4 under the Wildlife Conservation Act 1950)), and Quenda (*Isoodon obesulus fusciventer* (Priority 5 under the Wildlife Conservation Act 1950)).

The application area contains Banksia woodland, however the banksias are in poor condition and are not producing new cones. Therefore the application area does not provide significant foraging habitat for Carnaby's cockatoo. The application area may however provide habitat for ground dwelling fauna such as the Western Brush Wallaby and Quenda.

The application area is located approximately 300 metres north of Gingin Brook. This watercourse is mapped as a conservation category wetland which provides a significant east west linkage. The vegetation under application supports this linkage and is likely to be used by fauna utilising the watercourse to move across the local landscape.

The application area is in very good condition, may provide habitat for conservation significant fauna and supports an ecological linkage. Therefore, the proposed clearing may be at variance to this principle.

To compensate for the proposed clearing of five hectares of native vegetation in very good condition the applicant is committed to placing a conservation covenant over the remaining 9.5 hectares of vegetation adjacent to the application area. The area proposed to be placed under a conservation covenant is in the same or better condition to the application area. The 9.5 hectare remnant contains a number of large marri trees that could provide potential breeding habitat for Carnaby's cockatoo.

The disturbance caused by the proposed clearing will increase the risk of weeds and dieback spreading and/or being introduced into the proposed offset area. Weed and dieback management practices will assist to ensure that this does not occur.

Methodology References:
DEC (2007-)
DEC (2011)

GIS Database:
- Pre European Vegetation
- SAC Biodatasets - accessed May 2013

(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

Three conservation significant fauna species have been recorded in the local area (10 kilometre radius) being; Carnaby's cockatoo (*Calyptorhynchus latirostris* (rare or likely to become extinct under the Wildlife Conservation Act 1950)), Western Brush Wallaby (*Macropus irma* (Priority 4 under the Wildlife Conservation Act 1950)), and Quenda (*Isoodon obesulus fusciventer* (Priority 5 under the Wildlife Conservation Act 1950)) (DEC, 2007-).

The application area is dominated by four species, being; *Banksia attenuata*, *Eucalyptus tottiana*, *Xanthorrhoea preissii* and *Mesomelaena* sp.

Carnaby's cockatoo nests in large hollows of eucalyptus trees and forage on the seeds, nuts and flowers of a large variety of plants including Proteaceous species (*Banksia*, *Hakea*, *Grevillea*), as well as *Allocasuarina* and *Eucalyptus* species, *Corymbia calophylla* and a range of introduced species, especially seeds from cones of *Pinus* species (Shah, 2006; Valentine and Stock, 2008).

Carnaby's cockatoo was once abundant in Western Australia. Since the late 1940s the species has suffered a 30 per cent contraction in range, a 50 per cent decline in population, and between 1968 and 1990 disappeared from more than a third of its breeding range (Saunders 1990; Johnstone and Storr 1998; Saunders and Ingram 1998; Garnett et al. 2011). Basic ecological theory, expert opinion and recent evidence, suggests that the remaining native and pine plantation foraging habitat on the Swan Coastal Plain is just sufficient to support the current population of Carnaby's cockatoo. Therefore any reduction in the amount of food source will result in a reduction in the carrying capacity of the region and therefore a decline in the population of Carnaby's cockatoo.

The closest confirmed roost site for Carnaby's cockatoo is located 12 kilometres south of the application area.

Although the application area contains Banksia woodland the banksias in this area are in very poor condition and no new cones were observed (DEC, 2013). The applicant advised that he has owned the property since 2007 and in this time he has never seen a new cone on any of the banksias in this area. Foraging evidence of Carnaby's cockatoo was searched for but not found within the five hectare area under application (DEC, 2013).

The application area is located approximately 300 metres north of Gingin Brook. This watercourse is mapped as a conservation category wetland which provides a significant east west linkage. The vegetation under

application supports this linkage and is likely to be used fauna utilising the watercourse to move across the local landscape. The proposed clearing will not remove this linkage but it may reduce its effectiveness.

Although the area under application does not provide significant foraging habitat for Carnaby's cockatoo, it does provide habitat for ground dwelling fauna and supports an east west ecological linkage. Therefore the proposed clearing is at variance to this principle.

To compensate for the proposed clearing of five hectares of native vegetation in very good condition the applicant is committed to placing a conservation covenant over the remaining 9.5 hectares of vegetation adjacent to the application area. The area proposed to be placed under a conservation covenant is in the same or better condition to the application area. The 9.5 hectare remnant contains a number of large marri trees that could provide potential breeding habitat for Carnaby's cockatoo.

Methodology References:
- DEC (2013)
- Garnett et al (2011)
- Johnstone and Storr (1998)
- Keighery (1994)
- Saunders (1990)
- Saunders and Ingram (1998)
- Shah (2006)
- Valentine and Stock (2008)

GIS Database:
- Sac Biodata sets - accessed May 2013

(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**

Two species of rare flora have been mapped within the local area (10kilometre radius).

The first species occurs in deep sandy soils in banksia woodland in low-lying areas alongside winter wet swamps (Brown et al 1998). The second grows in shallow soils on limestone ridges where it emerges from heath and thickets of parrot bush and *Melaleuca huegelii* (Brown et al 1998).

The preferred habitat for these two species is not present within the application area.

The proposed clearing is not likely to be at variance to this principle.

Methodology Reference:
Brown et al. (1998)

GIS Database:
- Pre European Vegetation
- SAC Biodatasets - accessed May 2013

(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**

The closest Threatened Ecological Community (TEC) to the application area is Floristic Community Type SCP 26a - *Melaleuca huegelii* - *M. acerosa* shrublands on limestone ridges.

The application area does not contain *Melaleuca* species or limestone ridges and is therefore not likely to be representative of this TEC.

The proposed clearing is not likely to be at variance to this principle.

Methodology GIS Database:
- Pre European Vegetation
- SAC Biodatasets - accessed May 2013

(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 area under application is located within the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 39 per cent of its Pre European vegetation extent remaining (Government of Western Australia, 2011).

The application area is mapped as Beard Vegetation Associations 1014 (approximately 70 per cent of the application area) and 1008 (approximately 30 per cent of the application area). These vegetation associations have approximately 56 and 26 per cent of their pre-European extent remaining in the Swan Coastal Plain bioregion respectively (Government of Western Australia, 2011). The application area is also mapped as Heddle Vegetation Complex Karrakatta Complex-North of which there is approximately 37 per cent of its pre-European vegetation extent remaining (Heddle et al, 1980).

Digital imagery (Perth Metropolitan North 15cm Orthomosaic - Landgate 2011) indicates that the local area (10km radius) retains approximately 60 per cent vegetation.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

Given the above, the application is not likely to be at variance to this clearing principle.

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Swan Coastal Plain	1 501 209	587 833	39	35
Shire*				
Shire of Gingin	319 671	177 340	55	43
Beard Vegetation Association in Bioregion*				
1014	41 064	22 937	56	53
1008	4 561	1 203	26	0
Heddle Complex**				
Karrakatta Complex- North	25 579	9444	37	

*Government of Western Australia (2011)

** Heddle et al. (1980)

Methodology

References:

Commonwealth of Australia (2001)
Government of Western Australia (2011)
Heddle et al. (1980)

GIS Database:

- Perth Metropolitan North 15cm Orthomosaic - Landgate 2012
- Pre European Vegetation
- SAC Biodatasets - accessed May 2013

(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

The closest mapped watercourse is Gingin Brook which is located approximately 300 metres south east of the application area. Gingin Brook is a Conservation Category Wetland.

No wetlands or watercourses were identified within the application area during the site inspection (DEC, 2013).

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

Methodology

Reference:
DEC (2013)

GIS Database:

- Environmentally Sensitive Areas

- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Hydrogeology, 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

The chief soils of the application area are leached sands on the low dunes and small areas of other sandy soils (Northcote et al, 1960-68).

Soils within the applied area are part of the Spearwood Dune System, which are described as well drained deep yellow sands, and unlikely to erode through water erosion. These soils have a high risk of wind erosion however, wind erosion could be controlled with good management practices (Commissioner of Soil and Land Conservation, 2012).

Therefore, the clearing may be at variance to this Principle.

Methodology

References:

Northcote et al (1960-68)

Commissioner of Soil and Land Conservation (2012)

GIS Databases

SAC biodata sets (accessed May 2013)

(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

The closest conservation reserve to the application area is Gngangara Moore River State Forest which at its closest point is located approximately 1.8 kilometres south east of the application area. Another section of this same reserve is located approximately 9.7 kilometres north west.

The application area is located approximately 300 metres north of Gingin Brook. This watercourse is mapped as a conservation category wetland which provides a significant east west linkage. The vegetation under application supports this linkage and is likely to be used fauna utilising the watercourse to move between conservation reserves.

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

To compensate for the proposed clearing of five hectares of native vegetation in very good condition the applicant is committed to placing a conservation covenant over the remaining 9.5 hectares of vegetation adjacent to the application area. The area proposed to be placed under a conservation covenant is in the same or better condition than the application area. The retention of this 9.5 hectares area will help ensure ecological linkages are not severed.

Methodology

GIS Database:

-DEC Tenure

- Perth Metropolitan North 15cm Orthomosaic - Landgate 2012

(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

No watercourses or wetlands occur within the application area, therefore the proposed clearing is not likely to impact upon surface water.

The closest mapped wetland/watercourse is Gingin Brook, which is located approximately 300 metres south east of the application area.

The chief soils are leached sands on the low dunes and small areas of other sandy soils (Northcote et al, 1960-68). Given the soils present it is unlikely that eutrophication of Gingin Brook will result from the proposed clearing (Commissioner of Soil and Land Conservation, 2012).

The groundwater salinity within the application area is 500-1000 milligrams per litre of Total Dissolved Solids. This level of groundwater salinity is considered to be marginal. The proposed clearing is not likely to increase the level of groundwater salinity.

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

Methodology Reference:
Commissioner of Soil and Land Conservation (2012)

GIS databases:
- Groundwater Salinity Statewide
- Hydrography, linear
- Rainfall, Mean Annual

(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**

Given the porous nature of the soils and the relatively low rain fall (800mm per annum) the proposed clearing is not likely to cause or exacerbate the incidence or intensity of flooding.

Therefore, the proposed clearing is not likely to be at variance to this principle.

Methodology GIS databases:
- Hydrography, linear
- Rainfall, Mean Annual

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

Comments

The applicant has previously applied to clear the area under application and was refused a clearing permit. The previous application was a 10 hectare area which extended south of the current area. The previous application was refused as it was determined to be significant habitat for Carnaby's cockatoo. The applicant has now removed the area which contains a number of large Marri trees and has proposed to place a conservation covenant over a 9.5 hectare area which lies adjacent the current application area.

The Shire of Gingin has issued the applicant with Planning Consent for Irrigated Horticulture (Citrus) (Shire of Gingin, 2011). This approval was issued 27 June 2011 for a period of two years. The applicant has contacted the Shire, who has expressed its willingness to extend the duration of the approval.

The area under application is zoned as 'rural' under the Town Planning Scheme.

The area under application falls within the Gingin Groundwater Area which is an area proclaimed under the Rights in Water and Irrigation Act 1950. The applicant currently holds a Licence to Take Water (DoW, 2007). This licence allows for the irrigation of up to 12 hectares of orchard.

No submissions from the public have been received in relation to this application.

Methodology References:
DoW (2007)
Shire of Gingin (2011)

GIS Database:
- RIWI, Groundwater Area
- Town Planning Scheme Zone

4. References

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- Commissioner of Soil and Land Conservation (2012) Land degradation advice. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food, Western Australia (DEC Ref: A517091).
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed May 2013.
- DEC (2011) Species and Communities Branch advice in relation to Priority Ecological Communities. Department of Environment and Conservation, Western Australia (DEC Ref: A370547).
- DEC (2013) Site Inspection Report for Clearing Permit Application CPS 5598/1, Lot 1892 Dooling Road, Neergabby. Site inspection undertaken 6 June 2013. Department of Environment and Conservation, Western Australia (DEC Ref: A643807).
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- 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.
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- Saunders, D.A. and Ingram, J.A. (1998). Twenty-eight years of monitoring a breeding population of Carnaby's cockatoo. *Pacific Conservation Biology*. 4: 261-270.
- 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.

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)