GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS
Area Permit Number:2633 / 1
File Number:DEC8581
Duration of Permit: From 16 November 2008 to 16 November 2010

PERMIT HOLDER
Odeum Holdings Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE
LOT 6 ON PLAN 12312 (House No. 529 CHITNA NEERGABBY 6503)

AUTHORISED ACTIVITY
Clearing of up to 10 hectares of native vegetation within the area hatched yellow on attached Plan 2633/1.

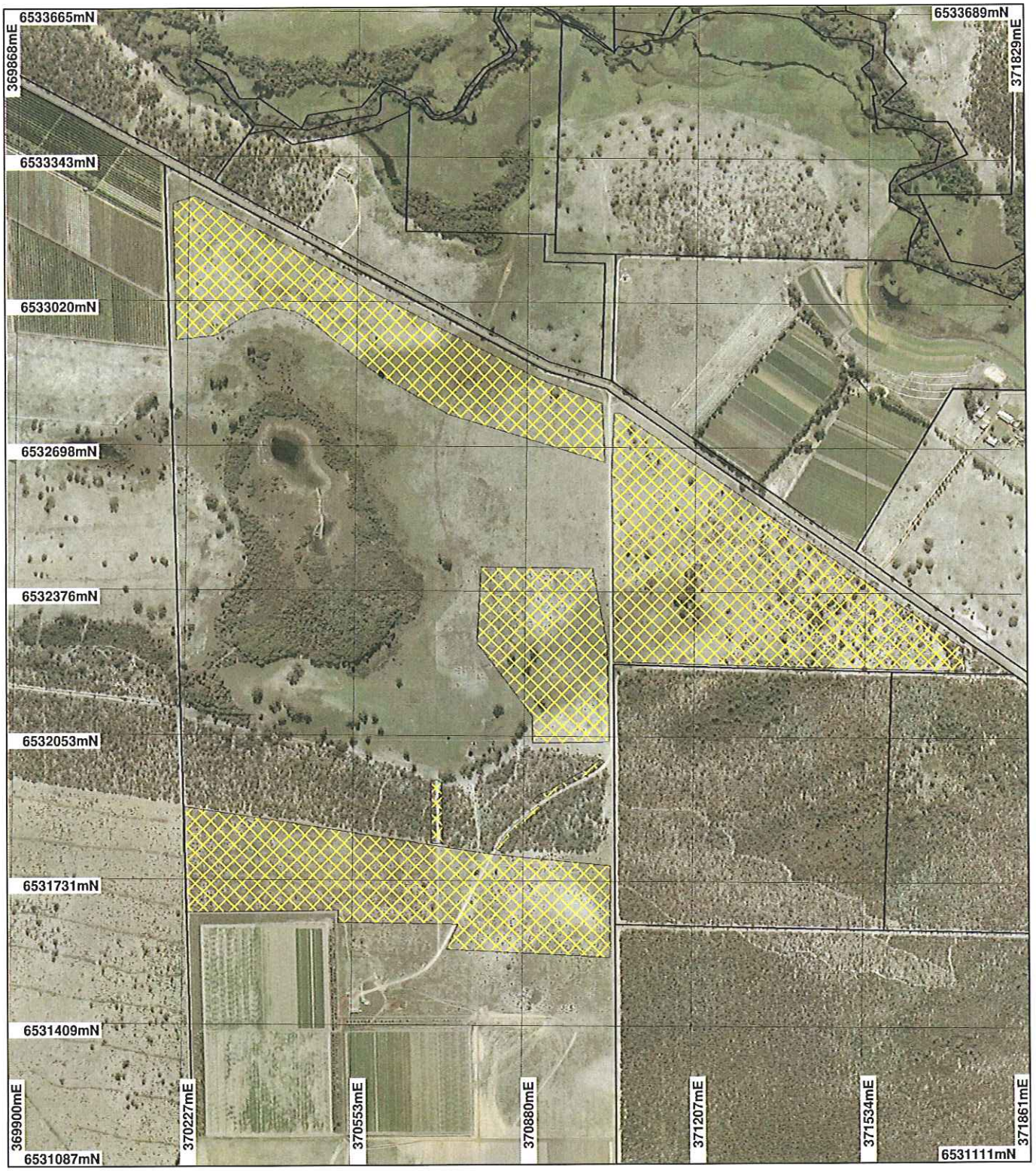
CONDITIONS
Nil

Keith Claymore
A/ ASSISTANT DIRECTOR
NATURE CONSERVATION DIVISION

Officer delegated under Section 20
of the Environmental Protection Act 1986

16 October 2008

Plan 2633/1



LEGEND

Clearing Instruments

- Areas Approved to Clear

Cadastre

Ledge Point Gingin 50cm Orthomosaic - Landgate 2003

N

0 ~300 m

Scale 1:11435
(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.

K Claymore Date 16/10/08

K Claymore

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 acknowleged by the agency acronym in the legend.

Department of Environment and Conservation

** Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.*

Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2633/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Odeum Holdings Pty Ltd

1.3. Property details

Property: LOT 6 ON PLAN 12312 (House No. 529 CHITNA 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:
13		Mechanical Removal	Horticulture

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 types: 949: Low woodland; banksia. 1008: Medium open woodland; marri. (SAC Bio Datasets 19/08/2008; Shepherd, 2006)	The area under application (13ha of vegetation within a 61ha area) is located within Lot 6, a 201.6ha property (Zoned rural). The clearing is to extend an existing 43 hectare horticultural area.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The condition of the native vegetation under application was sourced from the site inspection (DEC, 2008).
Heddle Vegetation Complex: Karrakatta Complex - North: Predominantly low open forest and low woodland of Banksia spp. E- E. todtiana, less consistently open forest of E. gomphocephala - E. todtiana - Banksia species. (Heddle et al, 1980)	The vegetation under application is described as predominantly parkland cleared in the northern, central and southern sections (~40ha area or ~65%) with scattered Nuytsia floribunda, marri (Corymbia calophylla) and Balga (Xanthorrhoea preissii), Jacksonia sp. with the area dominated by veldt grass. Scattered Melaleuca rhaphiophylla was observed within the areas under application. The areas under application comprise white sands with no limestone outcropping observed.		
As above	The vegetation within the eastern area (~20ha area or ~33%) with included: Corymbia calophylla, Eucalyptus todtiana, Nuytsia floribunda, Jacksonia furcellata, Xanthorrhoea preissii and Patersonia sp. with the area dominated by veldt grass and pigface.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	As above
As above	The vegetation around proposed fence and road	Very Good: Vegetation structure altered;	As above

	easement extension (~1ha area or ~2%) included: Corymbia calophylla, Nuytsia floribunda, Kunzea sp., Isopogon sp, Acacia pulchella, Ptilotus polystachyus, Hibbertia sp, Desmocladus sp, Mesomelaena sp, Xanthorrhoea preissii, Petrophile sp, Banksia illicifolia, Banksia attenuata, Banksia menziesii, Jacksonia sp., Synaphea sp, Stirlingia linearis, Anigozanthos humilis subsp humilis, Conospermum sp, Hybanthus sp, Isotropis sp, Conostylis sp, and Lyginia sp. with some veldt grass in the lower storey.	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 is not likely to be at variance to this Principle

The areas under application include approximately 13ha of native vegetation within a 61ha area. The areas under application have been subject to cattle grazing with some areas showing signs of disturbance including significant areas of veldt grass, which was grazed on by the stock (DEC, 2007).

A site inspection of the areas under application identified the vegetation as being predominantly parkland cleared (~40ha area with approximately 2ha of native vegetation) with scattered Nuytsia floribunda, marri (Corymbia calophylla), balga (Xanthorrhoea preissii) and Jacksonia sp. with the areas dominated by veldt grass with the condition considered completely degraded (DEC, 2008).

The vegetation within the eastern section (~20ha area with approximately 10ha of native vegetation) included Corymbia calophylla, Eucalyptus todtiana, Nuytsia floribunda, Jacksonia furcellata, Xanthorrhoea preissii and Patersonia sp. with the area dominated by veldt grass and pigface and the condition considered degraded to good (DEC, 2008). In addition, the vegetation around the proposed fence and road easement extension (~1ha native vegetation) is considered to be in very good condition.

Given the high level of disturbance from cattle grazing and veldt grass invasion, low species diversity and low habitat value, it is not considered likely that the areas under application comprise a high level of biological diversity.

Methodology

References:
- DEC (2007)
- DEC (2008)

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments

Proposal is not likely to be at variance to this Principle

There are no fauna species of conservation significance recorded within the local area (5km radius). The nearest record is Carnaby's Black-Cockatoo (Calyptorhynchus latirostris) located approximately 5.1km west of the area under application. This species is listed as a Schedule 1 species under the Wildlife Conservation (Specially Protected Fauna) Notice 2006. Fauna listed as Schedule 1 fauna are rare or likely to become extinct and are declared to be fauna in need of special protection.

The Black-Cockatoo is known to feed on a large variety of plants including Proteaceous species (e.g. banksia, dryandra and grevillea), marri nuts (Corymbia calophylla), jarrah (Eucalyptus marginata), tuart (Eucalyptus gomphocephala) and a range of introduced species (Shah, 2006). Given the condition, the vegetation under application is not likely to provide feeding or nesting areas for this species.

In addition, the general lack of understorey is not likely to provide suitable habitat for ground dwelling fauna species.

Given the areas under application are predominantly parkland cleared in completely degraded condition; it is not considered that the vegetation under application is likely to comprise significant habitat for fauna indigenous to Western Australia.

Methodology References:
- DEC (2008)
- Shah (2006)

GIS Databases:
- Gingin 50cm Orthomosaic - Landgate06
- SAC Bio Datasets 19/08/2008

(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**

There are 12 known records of two species of rare in the local area (10km radius). The nearest recorded species are Drakaea elastica located approximately 6.2km south-east and Eucalyptus argutifolia located approximately 7.3km south-west of the areas under application.

Drakaea elastica flowers in Oct-Nov, with a green leaf being obvious in August; is usually found in 'white or grey sand in low-lying situations adjoining winter-wet swamps' and is often found in association with thickets of Kunzea glabrescens (Western Australian Herbarium 1998-).

The vegetation under application is predominantly parkland cleared (~40ha area) with scattered Nuytsia floribunda, Corymbia calophylla and Xanthorrhoea preissii with the areas dominated by veldt grass with no thickets of Kunzea glabrescens occurring within the areas under application (DEC, 2008). Therefore, the 13ha of native vegetation under application is not considered likely to provide suitable habitat for Drakaea elastica.

Eucalyptus argutifolia grows in shallow sand on limestone ridges and slopes, where it emerges from heath and thicket of parrot bush (Dryandra sessilis) and chenille honey-myrtle (Melaleuca huegelii), and flowers in March to April (Brown et al, 1998). The site inspection of the areas under application identified no limestone ridges and no Melaleuca huegelii (DEC, 2008). Therefore, this species is not likely to occur within the areas under application.

Given the areas under application are predominantly parkland cleared and do not include Kunzea glabrescens or shallow sands on limestone ridges, it is not considered that the vegetation applied to be cleared includes suitable habitat for Drakaea elastica and Eucalyptus argutifolia. Therefore, the clearing as proposed is not likely to be at variance to this Principle.

Methodology References:
- Brown et al (1998)
- DEC (2008)
- Western Australian Herbarium (1998-)

GIS Databases:
- Heddle Vegetation Complexes
- SAC Bio Datasets 19/08/2008
- 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 nine occurrences of Threatened Ecological Communities (TECs) within the local area (5km radius). The nearest recorded TEC is located approximately 4.3km south-west of the areas under application. These nine TEC have been identified as being Community type 26a - Melaleuca huegelii-M. acerosa shrublands of limestone ridges. A site inspection (DEC, 2008) of the areas under application identified no limestone ridges with the areas being sandy soils.

Given the areas under application do not include limestone ridges, the vegetation applied to be cleared is not likely to comprise or is necessary for the maintenance of a threatened ecological community. Therefore the clearing as proposed is not likely to be at variance to this Principle.

Methodology Reference:
- DEC (2008)

GIS Database:
- SAC Bio Datasets 19/08/2008

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments **Proposal is not likely to be at variance to this Principle**

The vegetation within the areas under application are identified as a component of Beard vegetation types 949 and 1008, and Heddle Karrakatta Complex North, of which there is 57.0%, 16.8% and 36.9% of Pre-European extent remaining respectively (Shepherd, 2006; EPA, 2006).

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents the clearance of ecological communities with an extent below 30% of that present Pre-European settlement (Commonwealth of Australia, 2001). The Beard vegetation type (1008) in the area under application is below the recommended minimum of 30% representation.

However, the vegetation under application is predominantly parkland cleared (~40ha area) with scattered Nuytsia floribunda, Corymbia calophylla and Xanthorrhoea preissii and Jacksonia sp with the areas dominated by veldt grass, and considered to be in completely degraded condition. (DEC, 2008). Therefore, the areas under application are not considered to be representative of Beard vegetation type 1008. In addition, aerial imagery and vegetation mapping of the local area (5km radius) shows approximately 55% remnant vegetation to be remaining.

Given the completely degraded condition of the vegetation under application and there is approximately 55% remnant vegetation remaining in the local area; the vegetation applied to be cleared is not considered significant as a remnant of native vegetation. Therefore, the clearing as proposed is not likely to be at variance to this Principle.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregion*				
Swan Coastal Plain^	1,501,456	571,758	38.1	
Shire of Gingin**	315,560	177,688	56.3	
Beard vegetation types				
949*	218,204	124,461	57.0	49.3
1008*	4,592	771	16.8	0.0
Heddle vegetation complex***				
Karrakatta Complex North	25,579	9,444	36.9	0.2

* (Shepherd, 2006)
** (Shepherd et al, 2001)
*** (EPA, 2006)
^ Area within Intensive Land Use Zone

Methodology

References:
- Commonwealth of Australia (2001)
- DEC (2008)
- EPA (2006)
- Heddle et al (1980)
- Shepherd et al (2001)
- Shepherd (2006)

GIS Databases:
- Interim Biogeographic Regionalisation of Australia
- Gingin 50cm Orthomosaic - Landgate06
- NLWRA, Current Extent of Native Vegetation
- SAC Bio Datasets 19/08/2008

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments

Proposal may be at variance to this Principle

There is a sumpland (seasonally inundated wetland), which is classified as a Resource Enhancement Wetland (REW) (also identified as an EPP lake) located within Lot 6 (DEC, 2007a). This wetland covers an area of approximately 44.7ha with approximately 7ha within the areas under application. A few small stands of Melaleuca rhaphiophylla, which are wetland dependant species, were observed on site (DEC, 2008). However, a site inspection of the areas under application identified the vegetation as being predominantly parkland cleared (~40ha area with approximately 2ha of native vegetation) with scattered Nuytsia floribunda, Corymbia calophylla and Xanthorrhoea preissii and Jacksonia sp. with the areas dominated by veldt grass and the condition considered completely degraded (DEC, 2008).

Given the occurrence of a few Melaleuca rhaphiophylla trees, which are wetland dependant species, within the areas under application; some of the vegetation under application may be considered to be growing in an environment associated with a wetland.

Methodology

Reference:
- DEC (2007a)

- DEC (2008)
- Government of Western Australia (1997)

GIS Databases:
- EPP, Lakes
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Hydrogology, 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 landscape of the areas under application and surrounds can be described as subdued dune-swale terrain (Northcote et al, 1960-68). The chief soils are leached sands on the low dunes and small areas of other sandy soils (Northcote et al, 1960-68). These soils are known to have a low Phosphorus Retention Index (PRI), and it is considered that the proposed clearing of deep-rooted perennial vegetation is likely to result in increased nutrient loss from the soil profile (McPharlin et al, 1990).

Soils within the applied area are part of the Spearwood Dune System, which are described as well drained deep yellow sands. These soils have a high risk of wind erosion and phosphorus export and low risk of surface water runoff (State of Western Australia, 2005).

Given the sandy soils present within the areas under application, it is considered that the proposed clearing of approximately 10ha of degraded native vegetation within a 61ha area, could be managed. However clearing may cause increased nutrient loss from the soil profile. Therefore, it is considered that the clearing as proposed may be at variance to this Principle.

Methodology

References:
- McPharlin et al (1990)
- Northcote et al (1960-68)
- State of Western Australia (2005)

GIS Databases:
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- 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 three conservation reserves within the local area (5km radius), being State Forest 65 (Gnangara-Moore River State Forest) located 0.6m south south-west, Gingin Stock Route Nature Reserve located 1.2km west and Bush Forever Site 406 (also identified as State Forest 65) located 3.5km south-west of the areas under application.

A site inspection of the areas under application identified the vegetation under application as being predominantly parkland cleared (~40ha area) with scattered Nuytsia floribunda, Corymbia calophylla and Xanthorrhoea preissii and Jacksonia sp with the areas dominated by veldt grass, and considered to be in completely degraded condition. (DEC, 2008).

Given the high level of disturbance and completely degraded condition of the vegetation, it is not considered that the areas under application are likely to have an impact on the environmental values of the nearby conservation areas.

Methodology

Reference:
- DEC (2008)

GIS databases:
- Bushforever
- DEC Managed Lands and Waters

(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

There is a sumpland (seasonally inundated wetland), which is classified as a Resource Enhancement Wetland (REW) (also identified as an EPP lake) located within Lot 6 (DEC, 2007a). This wetland covers an area of approximately 44.7ha with approximately 7ha within the areas under application.

The areas under application are considered to have a low (~13ha) to high salinity risk (~11ha).

The areas under application are predominantly in a completely degraded condition (~40ha) with limited vegetation.

Methodology References:
- DEC (2007a)
- DEC (2008)
- WRC (2001)

GIS Databases:
- EPP, Lakes
- Rivers
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Public Drinking Water Source Areas (PDWSAs)
- Salinity Risk LM 25m - DOLA 00

(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

There is a Resource Enhancement Wetland (REW) located within Lot 6 (DEC, 2007a). This wetland covers an area of approximately 44.7ha with approximately 7ha being within the areas under application. However, given a site inspection of the areas under application identified the vegetation as being predominantly parkland cleared (~40ha area with approximately 2ha of native vegetation) with the areas dominated by veldt grass (DEC, 2008); it is considered that the clearing as proposed (13ha of native vegetation within an 61ha area) is not likely to cause or increase the incidence or intensity of localised flooding.

Methodology References:
- DEC (2007a)
- DEC (2008)

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

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

Comments

The area under application is within the Proclaimed Groundwater Area of Gingin. Therefore any abstraction of groundwater would require a licence. As the proposed purpose of the clearing is for irrigated horticulture and orchard development a groundwater licence is required.

Odeum Holdings Pty Ltd (2008) has been given approval for Transfer of Licence to Take Water for Lot 6 Chitna Road from the Department of Water (DoW). This transfer would allow for the irrigation of up to 100 hectares of vegetables with a total groundwater allocation of 666,000kL/a (Odeum Holdings Pty Ltd, 2007).

Odeum Holdings Pty Ltd has submitted an application for Transfer of Licence to Take Water for Lot 6 Chitna Road to the Department of Water (DoW). This transfer would allow for the irrigation of up to 100 hectares of vegetables with a total groundwater allocation of 666,000kL/a. The application has been confirm by DoW (letter dated 13 August 2007), but has not been finalised (Odeum Holdings Pty Ltd, 2007):

The Shire of Gingin advised that the Council raises no objections clearing proposed on 529 (Lot 6) Chitna Road for the purpose of irrigated horticulture and orchard, as the land use has been issued Planning Consent under Council's Town Planning Scheme No.8 (Odeum Holdings Pty Ltd, 2007; Shire of Gingin, 2007; Shire of Gingin, 2008).

The Shire of Gingin issued Planning Consent, dated 16 July 2007, (Shire of Gingin, 2007) for 529 (Lot 6) Chitna Road with seven conditions, including:
- Condition 2: The area of Irrigated Horticulture, the subject of this application, shall be limited to 200 hectares.
- Condition 6: A 20 meter buffer comprising of native vegetation, shall be established around the perimeter of an approved Irrigated Horticulture area prior to the planting of the first crop and shall be maintained for the duration of the operation of the development. Such vegetation buffers shall be positioned in accordance with the Shire of Gingin's Fire Break Order.

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

Lot 6 on Plan 12312 is zoned Rural under the Town Planning Scheme No. 8.

Methodology References:
- DEC (2007a)
- Northcote et al (1960-68)
- Odeum Holdings Pty Ltd (2007)
- Odeum Holdings Pty Ltd (2008)
- Shire of Gingin (2007)
- Shire of Gingin (2008)
- Water and Rivers Commission (2001)

GIS databases:
- Acid Sulphate Soil risk map
- RIWI Act, Groundwater Areas
- Town Planning Scheme Zones

4. Assessor's comments

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

5. References

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

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

DEC (2007) Site Inspection Report, Department of Environment and Conservation (DEC), Western Australia. TRIM Ref ED2047

DEC (2007a) Wetlands Advice: Clearing Permit Application CPS 2154 - Lot 6 Chitna Road, Neergabby; Wetlands Program; Species and Community Branch; Department of Environment and Conservation. TRIM Ref DOC39221

DEC (2008) Site Inspection Report, Department of Environment and Conservation (DEC), Western Australia. TRIM Ref DOC60545

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 (1997) Wetlands Conservation Policy for Western Australia, Department of Conservation and Land Management and the Water and Rivers 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.

Odeum Holdings Pty Ltd (2007). Email from Jim Engelke with attachments, Copy of Planning Consent from Shire of Gingin and a Letter of confirmation for Application for Transfer of Licence to Take Water from Department of Water. TRIM Ref DOC41203

Odeum Holdings Pty Ltd (2008). Email from Jim Engelke, confirmation of Transfer of Licence to Take Water from Department of Water. TRIM Ref DOC60736

Shah, B. (2006) Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.

Shepherd, D.P. (2007). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

Shire of Gingin (2007) Direct Interest Submission from the Shire of Gingin and a copy of the approved map that accompanies the Planning Consent. TRIM Ref DOC40819

Shire of Gingin (2008) Direct Interest Submission from the Shire of Gingin. TRIM Ref DOC62147

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

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

Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and Conservation. http://florabase.dec.wa.gov.au/ (Accessed 07/01/2008).

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)