GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3266/2
Permit Holder:	Bulkwest Engineering Pty Ltd
Duration of Permit:	30 October 2009 – 30 October 2019

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. **Purpose for which clearing may be done**
   Clearing for the purpose of road re-alignment and widening.

2. **Land on which clearing is to be done**
   Bindoon-Moora Road reserve, Moora (PIN 11461272)
   Bindoon-Moora Road reserve, Barberton (PIN 11709930)
   Webb Street Road Reserve, Moora (PIN 11461271)

3. **Area of Clearing**
   The Permit Holder must not clear more than 0.3 hectares of native vegetation within the area hatched yellow on attached Plan 3266/2.

4. **Application**
   This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

5. **Offsets**
   As the clearing authorised under this permit impacts approximately 0.3 hectares of Beard vegetation association 142 "*Medium woodland; York gum & salmon gum*" and foraging habitat for *Calyptorhynchus latirostris* (Carnaby's Black-Cockatoo), the Permit Holder must implement an *offset* in accordance with conditions 5(a) and 5(b) of this Permit with respect to clearing.
   (a) Determination of *offsets*:
      (i) in determining the *offset* to be implemented with respect to a particular area of native vegetation proposed to be cleared under this Permit, the Permit Holder must have regard to the *offset* principles contained in condition 5(b) of this Permit;
      (ii) once the Permit Holder has developed an *offset proposal*, the Permit Holder must provide that *offset proposal* to the CEO for the CEO's approval prior to undertaking any clearing to which the *offset* relates, and prior to implementing the *offset*;
      (iii) clearing may not commence until and unless the CEO has approved the *offset proposal* to which the clearing relates;
      (iv) the Permit Holder shall implement the *offset proposal* approved under condition 5(a)(iii); and
      (v) each *offset proposal* shall include a *direct offset*, timing for implementation of the *offset proposal* and may additionally include *contributing offsets*.

(b) For the purpose of this condition, the *offset* principles are as follows:
   (i) *direct offsets* should directly counterbalance the loss of the native vegetation;
   (ii) *contributing offsets* should complement and enhance the *direct offset*;
   (iii) *offsets* are implemented only once all avenues to avoid, minimise, rectify or reduce environmental impacts have been exhausted;
   (iv) the environmental values, habitat, species, *ecological community*, physical area, ecosystem, landscape, and hydrology of the *offset* should be the same as, or better than, that of the area of native vegetation being *offset*;
   (v) a ratio greater than 1:1 should be applied to the size of the area of native vegetation that is offset to compensate for the risk that the *offset* may fail;
   (vi) *offsets* must entail a robust and consistent assessment process;
   (vii) in determining an appropriate *offset*, consideration should be given to ecosystem function, rarity and type of *ecological community*, vegetation *condition*, habitat quality and area of native vegetation cleared;
   (viii) the *offset* should either result in no net loss of native vegetation, or lead to a net gain in native vegetation and improve the *condition* of the natural environment;
   (ix) *offsets* must satisfy all statutory requirements;
   (x) *offsets* must be clearly defined, documented and audited;
   (xi) *offsets* must ensure a long-term (10-30 year) benefit; and
   (xii) an *environmental specialist* must be involved in the design, assessment and monitoring of *offsets*.

PART III - RECORD KEEPING AND REPORTING

6. Records must be kept

The Permit Holder must maintain the following records in relation to the offset of areas pursuant to condition 5 of this Permit:

(a) the location of any area of *offsets* recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;

(b) a description of the *offset* activities undertaken; and

(c) the size of the *offset* area (in hectares).

7. Reporting

(a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 6 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.

(b) Prior to 1 August 2019, the Permit Holder must provide to the CEO a written report of records required under condition 6 of this Permit where these records have not already been provided under condition 7(a) of this Permit.

DEFENITIONS

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

condition means the rating given to native vegetation using the *Keighery scale* and refers to the degree of change in the structure, density and species present in the particular vegetation in comparison to undisturbed vegetation of the same type;

contributing offset/s has the same meaning as is given to that term in the Environmental Protection Authority's *Position Statement No.9: Environmental Offsets*, January 2006;

direct offset/s has the same meaning as is given to that term in the Environmental Protection Authority's *Position Statement No.9: Environmental Offsets*, January 2006;

ecological community/ies means a naturally occurring biological assemblage that occurs in a particular type of habitat (English and Blythe, 1997; 1999);

environmental specialist means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit;

Keighery scale means the vegetation condition scale described in *Bushland Plant Survey: A Guide to Plant Community Survey for the Community (1994)* as developed by B.J. Keighery and published by the Wildflower Society of WA (Inc). Nedlands, Western Australia;

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;

offset/s means an offset required to be implemented under condition 5 of this Permit;

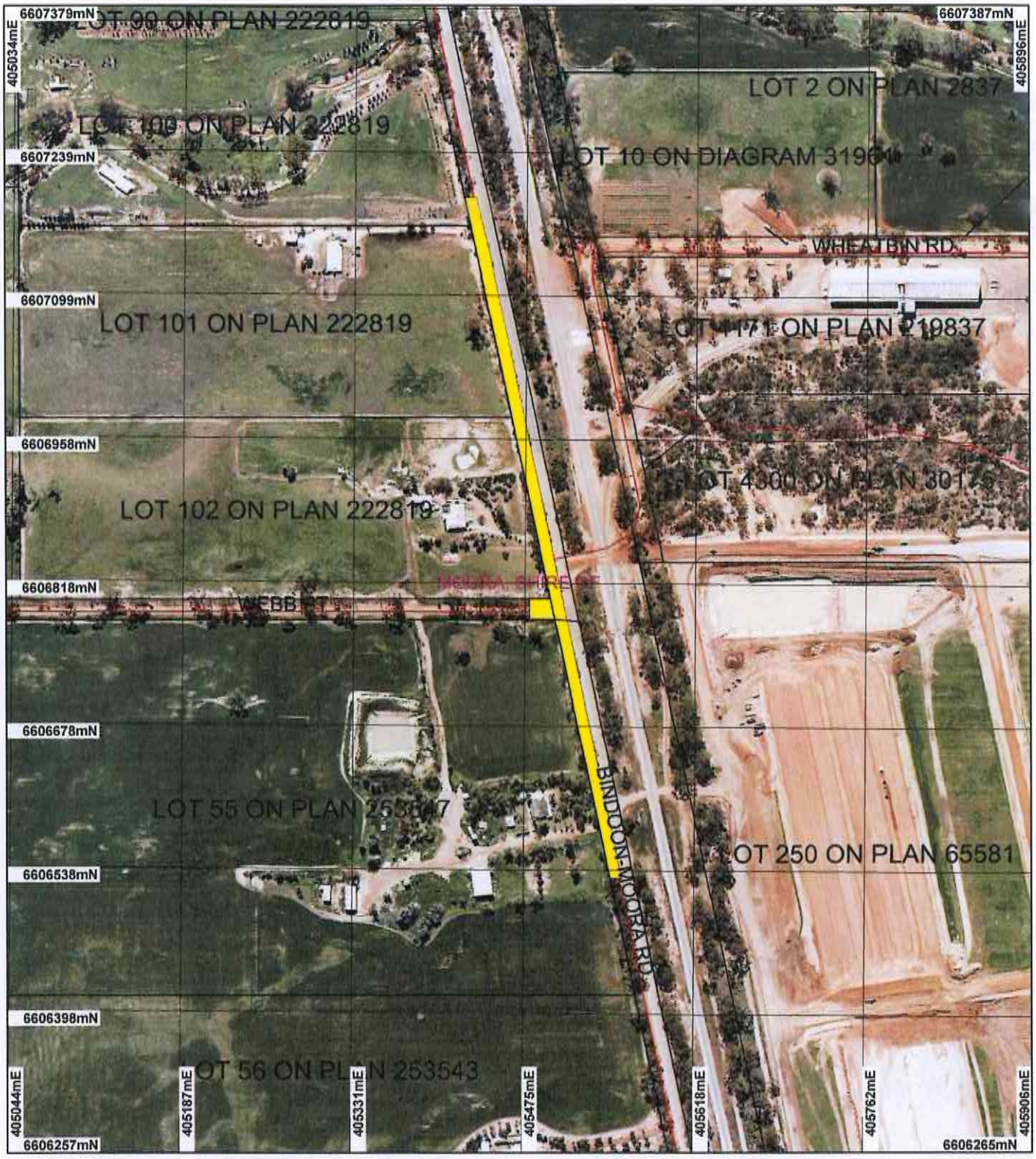
offset proposal means an *offset* determined by the Permit Holder in accordance with condition 5 of this Permit.

Jane Clarkson
A/SENIOR MANAGER
CLEARING REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

10 July 2014

Plan 3266/2



LEGEND

Road Centrelines
Local Government Authorities

Cadastre

Clearing Instruments

Areas Approved to Clear

N

0 150 m

Scale 1:5000
(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.

Date 10.7.14

J Clarkson

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.

Government of Western Australia
Department of Environment Regulation

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

GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.:	3266/2
Permit type:	Purpose Permit

1.2. Proponent details

Proponent's name:	**Bulkwest Engineering Pty Ltd**

1.3. Property details

Property:	ROAD RESERVE (MOORA 6510) ROAD RESERVE (BARBERTON 6510)
Local Government Area:	Shire of Moora

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.3		Mechanical Removal	Road construction or maintenance

1.5. Decision on Application

Decision on Permit Application:	Grant
Decision Date:	10 July 2014

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 vegetation under application is mapped as Beard vegetation association 7 which is described as medium woodland, york gum (Eucalyptus loxophleba) and wandoo (Shepherd et al, 2001).	The clearing of 0.3 hectares of native vegetation within Bindoon-Moora Road reserve and Webb Street road reserve, Moora, for the purpose of road realignment.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition of the vegetation under application was determined via a site inspection of the application area undertaken by Department of Environment Regulation staff (DER, 2014).

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 application is to clear up to 0.3 hectares of native vegetation for the purpose of road construction.

A site inspection of the application area undertaken by Department of Environment Regulation staff described the vegetation as an open eucalyptus woodland in a degraded condition (DER, 2014).

The application area falls within Beard vegetation association 142 which retains 12 percent native vegetation within the Avon Wheatbelt IBRA bioregion (Government of Western Australia, 2013). The local area (10 kilometre radius) retains less than 10 percent native vegetation. Given this, the application falls within a highly cleared landscape.

Calyptorhynchus latirostris (Carnaby's cockatoo) is listed as endangered under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and rare or likely to become exist under the Wildlife Conservation Act 1950 (WC Act). The application area falls within confirmed Carnaby's cockatoo breeding areas, is considered potential feeding habitat and contains Eucalyptus species of a size and age as to contain potential breeding hollows (DER, 2014).

Given the degraded condition of the understorey vegetation the application area is not likely to contain conservation significant flora recorded from the local area or be representative of a threatened or priority ecological community.

Given the highly cleared local area, the vegetation under application forms part of an ecological linkage facilitating the movement of genetic material through the landscape. Clearing the vegetation will not however sever this linkage as further vegetation exists within the opposite side of the road reserve and within a railway reserve adjoining it. This vegetation is in a similar condition to the application area.

Given the above, the application may be at variance to this principle.

Methodology

References:
- DER (2014)

GIS Datasets:
- SacBiodataSets - accessed May 2014

(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

Calyptorhynchus latirostris (Carnaby's cockatoo) and Dasyurus geoffroii (chuditch) have been recorded within the local area (10 kilometre radius) (DEC, 2007-). A site inspection of the application area undertaken by Department of Environment Regulation staff described the vegetation as an open eucalyptus woodland in a degraded condition (DER, 2014).

The application area falls within Beard vegetation association 142 which retains approximately 12 percent native vegetation within the Avon Wheatbelt IBRA bioregion (Government of Western Australia, 2013). The local area (10 kilometre radius) retains less than 10 percent native vegetation. Given this, the application falls within a highly cleared landscape where any remaining vegetation may be significant in the movement of fauna through the landscape.

Calyptorhynchus latirostris (Carnaby's cockatoo) is listed as endangered under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and endangered under the Wildlife Conservation Act 1950 (WC Act). The application area falls within confirmed Carnaby's cockatoo breeding areas, is considered potential feeding habitat and contains Eucalyptus species of a size and age as to contain potential breeding hollows. No tree hollows were observed within the application area during a site inspection (DER, 2014).

The Carnaby's cockatoo recovery plan (DEC, 2012a) summarises habitat critical to the survival of Carnaby's cockatoos as:
- The eucalypt woodlands that provides nest hollows used for breeding, together with nearby vegetation that provides feeding, roosting and watering habitat that supports successful breeding;
- Woodland sites known to have supported breeding in the past and which could be used in the future, provided adequate nearby food and/or water resources are available or are re-established; and
- In the non-breeding season the vegetation that provides food resources as well as the sites for nearby watering and night roosting that enable the cockatoos to effectively utilise the available food resources.

The recovery plan also states, "Success in breeding is dependent on the quality and proximity of feeding habitat within 12 kilometres of nesting sites. Along with the trees that provide nest hollows, the protection, management and increase of this feeding habitat that supports the breeding of Carnaby's cockatoo is a critical requirement for the conservation of the species" (DEC, 2012a).

The application area contains feeding habitat, may contain future nest sites (DER, 2014), is within the known breeding area of the species and the local area is highly cleared. Given this, the application area contains vegetation defined as critical to the survival of the species (DEC, 2012a).

The chuditch is classed as vulnerable under the EPBC Act and rare or likely to become extinct under the WC Act 1950. This species is highly mobile and is known to utilise native vegetation along road reserves in the wheatbelt (DEC, 2012b). The Roadside Conservation Council has noted that roadside vegetation is an "extremely important component of vegetation in this landscape" and "provides connectivity with remaining vegetation remnants" (DEC, 2009).

Although the vegetation under application is a component of a linkage within an extensively cleared landscape, native vegetation within this linkage will be retained along the eastern side of the road reserve and adjacent railway reserve.

Given the above, the application is at variance to this clearing principle.

Methodology

References:
- Avon Catchment Council (2007)
- DEC (2007-)
- DEC (2012a)
- DEC (2012b)
- DER (2014)
- Government of Western Australia (2013)

GIS Datasets:
- Moora 50cm orthomosaic - landgate 2008 (image)
- Carnaby Cockatoo breeding sites

(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

Four rare flora species have been recorded within the local area (10 kilometre radius), the closest species falling approximately 1.2 kilometres west.

The chief soil type along the road reserve is described by Northcote et al. (1960-68) as being hard alkaline yellow mottled soils with associated gilgai and cracking clays in some areas. A site inspection of the application area undertaken by Department of Environment Regulation staff described the vegetation as an open eucalyptus woodland in a degraded condition (DER, 2014).

The closest species inhabits clay, sandy clay or rich loam sites supporting tall open woodland over low open scrub as well as winter-wet plains. It appears to be restricted to a small area south of Moora (Brown, 1998; WA Herbarium, 1998 -). Although this species has been recorded within the Bindoon-Moora Road reserve within similar vegetation and soil types, as this road has had extensively surveyed (DEC, 2009) and a site inspection (DER, 2014) did not reveal the species, it is not likely to be present within the application area.

Given the degraded (Keighery, 1994) condition of the understorey and as no rare flora species have been recorded within the application area (DER, 2014; DEC, 2009), the application is not likely to be at variance to this clearing principle.

Methodology

References:
- Brown (1998)
- DEC (2009)
- DER (2014)
- Keighery (1994)
- Northcote et al (1960-68)
- WA Herbarium (1998 -)

GIS Databases:
- SAC Biodatasets - Accessed May 2014
- 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

One threatened ecological community (TEC) has been recorded within the local area (10 kilometre radius) approximately 2.5 kilometres north-east. This community is described as "Heath community on chert hills of the Coomberdale Floristic Region" (Endangered).

The vegetation under application is in a 'degraded' (Keighery, 1994) condition and differs vastly from this floristic community type (Bulkwest Engineering Ltd, 2009; Hamilton-Brown, 2000). It is therefore unlikely that the vegetation under application comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

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

Methodology

References:
- Bulkwest Engineering Ltd (2009)
- Hamilton-Brown (2000)
- Keighery (1994)

GIS Databases:
- SAC Biodatasets - Accessed May 2014

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

Comments

Proposal is at variance to this Principle

The area under application is located within the Avon Wheatbelt Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 18 percent of its pre-European vegetation extent remaining (Government of Western Australia, 2013).

The vegetation under application is mapped as Beard vegetation association 142 of which there is approximately 12 percent of its pre-European extent remaining within the Avon Wheatbelt bioregion (Government of Western Australia, 2013).

The area under application is located within the Shire of Moora, within which there is approximately 15 percent pre-European extent remaining (Government of Western Australia, 2013).

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

The local area (10 kilometre radius) is highly cleared with approximately 10 percent vegetation remaining.

The Roadside Conservation Council (DEC, 2009) has recognised that roadside vegetation is an "extremely important component of vegetation in this landscape" and "provides connectivity with remaining remnants of native vegetation".

The application area forms habitat for Calyptorhynchus latirostris (Carnaby's cockatoo) and forms part of a regionally significant linkage, facilitating the movement of endemic fauna through the landscape.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion				
Avon Wheatbelt	9,517,109	1,778,407	18	9.7
Shire				
Shire of Moora	376,192	59,423	15	23.26
Beard Vegetation Association within Bioregion				
142	637,707	80,971	12	2.9

Methodology

References:
- Commonwealth of Australia (2001)
- DEC (2009)
- *Government of Western Australia (2013)
- Shepherd (2007)

GIS Databases:
- Interim Biogeographic Regionalisation of Australia
- Local Government Authorities
- SAC Biodatasets - Accessed May 2014

(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 at variance to this Principle

The closest mapped wetland to the applied clearing area is a palusplain wetland, approximately 10.7 kilometres south. The closest watercourse to the applied clearing area is the Yadgena Brook, a minor non-perennial river and tributary of the Moore River, approximately 150 metres north of the applied clearing area.

A site inspection of the application area did not reveal the presence of vegetation growing in association with a watercourse or wetland.

Given the above the application is not at variance to this principle.

Methodology

GIS Databases:
- Geomorphic wetlands (Mgt Categories), 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 Department of Environment Regulation undertook a site inspection of the application area on 1 April 2014 (DER, 2014) noting:
- Wind erosion is unlikely given the linear nature of clearing and clearing purpose.
- Clearing the vegetation is unlikely to significantly increase surface water runoff.
- Given the topography, soil type and intended land use the risk of eutrophication is low.
- The proposed clearing areas are generally well drained.

Soils within the application area are described as hard alkaline yellow mottled soils with some associated areas of gilgai and cracking clays (Northcote et al., 1960-68). The applied clearing area ranges in topography from 200 - 210 metres (Australian Height Datum) and is of a low relief. The mean annual rainfall is 500 millimetres and the average evaporation rate is between 2200 and 2400 millimetres per year.
Ground water salinity levels in the local area have been mapped as saline (Water and River Commission, 2000) at 7000-14000 milligrams per litre total dissolved solids. The application area has been mapped adjacent to an area of salinity risk.

Perennial deep rooted vegetation maintains groundwater levels through transpiration, as this vegetation is removed the water table rises bringing with it saline minerals accumulated in the sediment for thousands of years. This saline water table kills shallow rooted vegetation as it rises before the water component is evaporated on the surface leading to significant land degradation (Water and Rivers Commission, 2000). As the groundwater salinity within the application area has been mapped as saline and given the highly cleared local area, clearing further native vegetation may lead to land degradation in the form of salinity.

Given the above, the application may be at variance to this principle.

Methodology

References:
- DER (2014)
- Keighery (1994)
- Northcote et al (1960-68)
- Water and Rivers Commission (2000)

GIS Databases:
- Groundwater Salinity, Statewide
- Hydrography, linear
- Salinity Risk LM 25m
- Topographic Contours, 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

Three Department of Parks and Wildlife managed conservation areas occur within the local area (10 kilometre radius). A Class C Nature Reserve approximately 65 metres east, a Class C Nature Reserve approximately 6.5 kilometres south and the Karamarra Class A Nature Reserve approximately 9.3 kilometres north-west.

The vegetation under application is a component of a linkage within an extensively cleared landscape. However, native vegetation within this linkage will be retained along the eastern side of the road reserve and adjacent railway reserve.

Therefore, although the vegetation contributes to the connectivity of vegetation remnants within the local area, given the scale of the clearing, the 'degraded' (Keighery, 1994) condition of the vegetation and that other native vegetation within this linkage will be retained, the application is not likely to be at variance to this principle.

Methodology

References:
- Keighery (1994)

GIS Databases:
- DEC managed land, Landgate 2008 (image)
- Moora 50cm orthomosaic

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments

Proposal may be at variance to this Principle

Ground water in the local area has been mapped as saline (Water and River Commission, 2000) at 7000-14000 milligrams per litre total dissolved solids. The application area has been mapped adjacent to an area of salinity risk.

Perennial deep rooted vegetation maintains groundwater levels through transpiration, as this vegetation is removed the water table rises bringing with it saline minerals accumulated in the sediment for thousands of years. This saline water table kills shallow rooted vegetation as it rises before the water component is evaporated on the surface leading to significant degradation (Water and Rivers Commission, 2000). As the groundwater salinity has been mapped as saline, clearing further native vegetation in this area may lead to deterioration in the quality of groundwater.

As rising groundwater carries salt to the land surface where it combines with surface flows (Water and Rivers Commission, 2000), clearing the vegetation under application may contribute to deterioration in the quality of surface water.

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

Methodology

References:
Water and River Commission (2000)

GIS Data Sets
- Salinity Risk LM 25M
- Salinity Statewide
- Hydrography linear (Hierarchical)

(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 at variance to this Principle

No watercourses or wetlands have been identified within the application area. A site inspection found that the proposed clearing area is generally well drained and no change in the occurrences of flooding is likely (DER, 2014).

The application is not at variance to this clearing principle.

Methodology

References:
DER (2014)

GIS Datasets:
- Hydrography linear

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

The proposed road widening and re-alignment is to allow safe access to the CBH Group receival point (Bulkwest Engineering Pty Ltd, 2014).

The Shire of Moora Council has given consent for the applicant to undertake selective clearing within the Webb Street road reserve (Shire of Moora, 2009) and Main Roads WA has provided Bulkwest Engineering Pty Ltd with authorisation to the Bindoon-Moora Road reserve for the purposes of exercising a 'purpose permit' for the removal of trees for the road re-alignment and widening (Main Roads WA, 2009).

The applied clearing area is located within the Gingin Groundwater Area proclaimed under the Rights in Water and Irrigation Act 1914, groundwater resources in this location are managed by the Department of Water (DoW). There is no indication that the applicant will require groundwater for this proposal however, should groundwater resources be required to be taken a licence will be required from the DoW.

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

No aboriginal sites of significance are mapped within the application area.

Methodology

References:
- Bulkwest Engineering Pty Ltd (2014)
- Main Roads WA (2009)
- Shire of Moora (2009)

GIS Databases:
- RIWI Act, Groundwater Areas

4. References

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

Bulkwest Engineering Pty Ltd (2014) Application to amend Clearing Permit CPS 3266/1, Bulkwest Engineering Pty Ltd CBH Group. Perth, Western Australia (DER ref: A727759).

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

DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: http://naturemap.dec.wa.gov.au/. Accessed May 2014

DEC (2012a). Carnaby's cockatoo (Calyptorhynchus latirostris) Recovery Plan. Department of Environment and Conservation, Perth, Western Australia.

DEC (2012b). Chuditch (Dasyurus geoffroii) Recovery Plan. Department of Environment and Conservation, Perth. Western Australia.

DER (2014) Site Inspection Report for Clearing Permit Application CPS 3266/2. Site inspection undertaken 1 April 2014. Department of Environment and Conservation, Western Australia (DER Ref: A762693).

Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.

Hamilton-Brown, S. (2000) Interim Recovery Plan No. 65: Heath dominated by one or more of Regelia megacephala, Kunzea praestans and Allocasuarina campestris on ridges and slopes of the chert hills of the Coomberdale Floristic Region Interim Recovery Plan 2000-2003, Department of Conservation and Land Management, Western Australian Threatened Species and Communities Unit, Wanneroo, 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.

Main Roads WA (2009) Letter of Authorisation to Access and Clear Native Vegetation for Bindoon-Moora Road Realignment and Widening, Moora. Main Roads Western Australia, Northam, Western Australia. (DER ref: DOC93154).

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., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

Shire of Moora (2009) Letter of Authorisation to Clear Native Vegetation from Webb Street for Bindoon-Moora Road Realignment and Widening, Moora. Shire of Moora, Moora, Western Australia. (DER ref: DOC93154).

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

Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. http://florabase.dpaw.wa.gov.au/ (Accessed May 2014).