GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3266/1
Permit Holder:	Bulkwest Engineering Pty Ltd
Duration of Permit:	30 October 2009 – 30 October 2014

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**
   ROAD RESERVE (BINDOON-MOORA ROAD, MOORA 6510)
   ROAD RESERVE (WEBB STREET, MOORA 6510)

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 3266/1.

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.

5. **Compliance with Assessment Sequence and Management Procedures**
   Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

6. **Avoid, minimise etc clearing**
   In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:
   (a) avoid the clearing of native vegetation;
   (b) minimise the amount of native vegetation to be cleared; and
   (c) reduce the impact of clearing on any environmental value.

7. **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 7(a) and 7(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 7(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 7(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

8. Records must be kept

The Permit Holder must maintain the following records in relation to the offset of areas pursuant to condition 7 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).

9. 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 8 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 2014, the Permit Holder must provide to the CEO a written report of records required under condition 8 of this Permit where these records have not already been provided under condition 9(a) of this Permit.

Definitions
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 7 of this Permit;

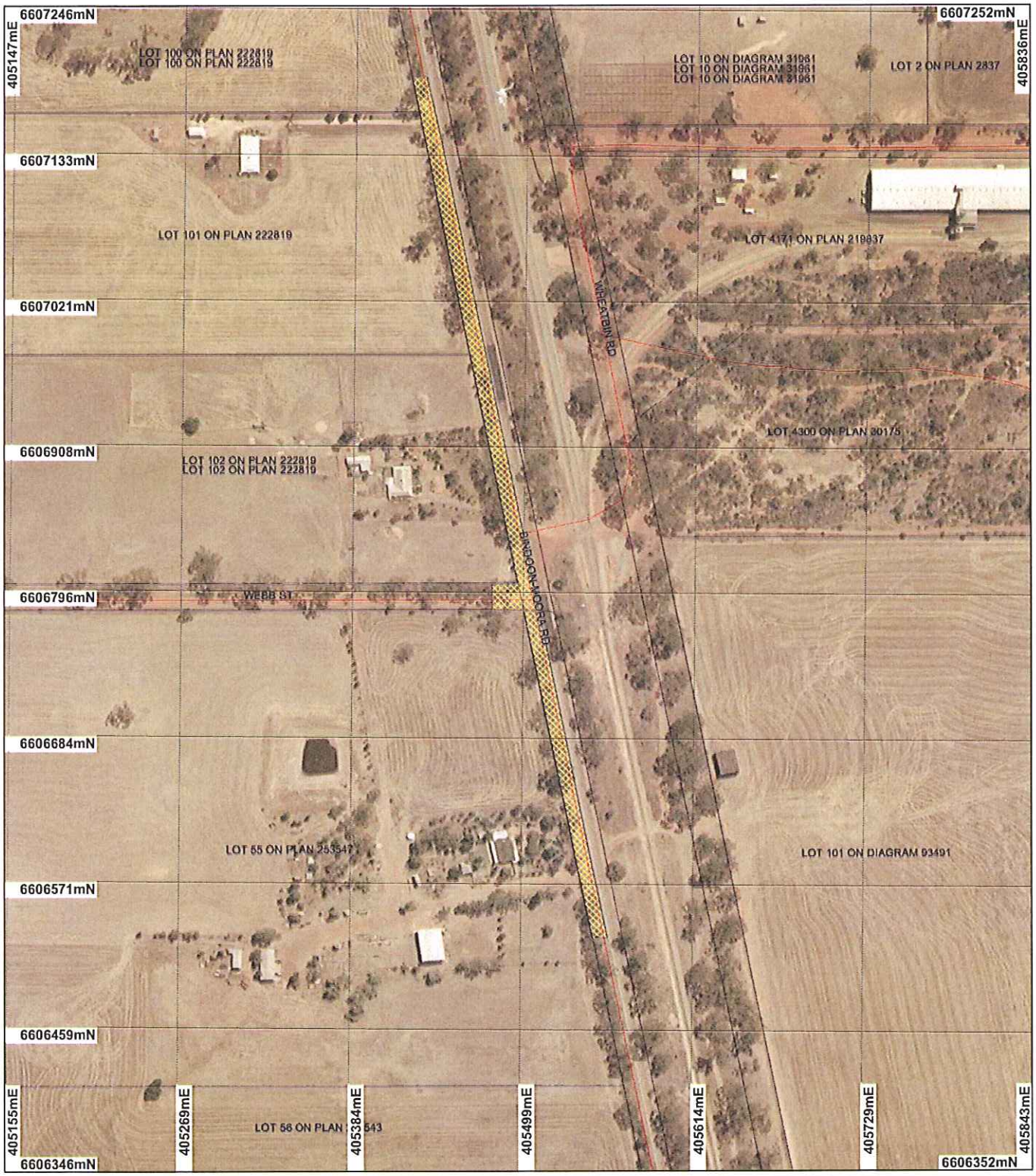
offset proposal means an *offset* determined by the Permit Holder in accordance with condition 7 of this Permit.

Keith Claymore
A/DIRECTOR
NATURE CONSERVATION DIVISION

Officer delegated under Section 20
of the Environmental Protection Act 1986

30 September 2009

Plan 3266/1



LEGEND

Clearing Instruments

- Areas Approved to Clear
- Road Centrelines
- Cadastre

- Towns

Dandaragan 50cm Orthomosaic - Landgate 2004

N

0 100 m

Scale 1:4000
(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.

Keith Claymore Date 30/9/09

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

Our environment, our future

Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3266/1

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 (MOORA 6510)

Colloquial name: Bindoon-Moora Road Reserve and Webb Street Reserve, Moora

1.4. Application

Clearing Area (ha)	Method of Clearing	For the purpose of:
0.3	Mechanical Removal	Road construction or maintenance

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: 142 - Medium woodland; York Gum and Salmon Gum.	The vegetation under application comprises 0.3ha of native vegetation along the western side of the Bindoon-Moora Road Reserve and a small portion on Webb Street at the T-junction of these two roads. The vegetation consists of York Gum (Eucalyptus loxophleba), Salmon Gum (Eucalyptus salmonophloia) and other Eucalyptus sp. over some mixed shrubs and grasses, however much of the understorey is cleared.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition of the vegetation was confirmed through photographs of the site submitted with the application (Bulkwest Engineering Pty Ltd, 2009) and aerial photography (Dandaragan 50cm Orthomosaic - Landgate 2004).

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 area under application consists of 0.3ha of native vegetation comprising some mature York and Salmon Gums and Eucalyptus sp. over some small shrubs and grasses in a 'degraded' (Keighery, 1994) condition (Bulkwest Engineering Limited, 2009 & DEC, 2009).

Six threatened fauna species have been recorded within the local area (20km radius) of the proposed clearing area with the closest record being Chuditch (Dasyurus geoffroii) classed as Vulnerable under both the EPBC Act 1999 and Wildlife Conservation Act 1950. The Carnaby's Black-Cockatoo (Endangered under the EPBC Act 1999) is also known to occur within the local area and the vegetation under application falls within the Important Bird Areas listed for this species (DEC, 2009). The vegetation under application comprises some mature York and Salmon Gums which may provide future habitat (DEC, 2009) as well as other Eucalyptus species which provide important foraging habitat for this species.

The Avon-Wheatbelt IBRA Region, Shire of Moora and the Beard Vegetation Association 142 within the Avon-Wheatbelt are all below 30% of their pre-European extent remaining (Shepherd, 2007), the threshold supported by the EPA as a recommended target for biodiversity conservation whereby species loss appears to accelerate exponentially (EPA, 2000).

The vegetation under application is in a 'degraded' (Keighery, 1994) condition and is in close proximity to agricultural areas and road and railway networks, however it may be providing significant biological diversity value as a remnant in this extensively cleared landscape.

As the proposal may be at variance to this principle, an offset condition will be placed on the permit to mitigate the loss of the vegetation which may contain a high level of biological diversity within the local area.

Methodology

References:
- Bulkwest Engineering Limited (2009)
- DEC (2009)
- EPA (2000)
- Keighery (1994)
- Shepherd (2007)

GIS Databases:
- EPA Position Paper No 2 Agriculture Region - DEP
- Dandaragan 50cm Orthomosaic - Landgate 2004
- SAC Biodatasets - Accessed 2/09/2009

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

Comments

Proposal may be at variance to this Principle

Six threatened fauna species have been recorded within the local area (20km radius) of the proposed clearing area with the closest record being Chuditch (Dasyurus geoffroii), approximately 460m east of the applied clearing area.

The Chuditch is classed as Vulnerable under both the EPBC Act 1999 and Wildlife Conservation Act 1950. This species inhabits both moist, densely vegetated, steep sloping and drier, open, gently sloping Jarrah forest, riparian vegetation and utilise native vegetation along road reserves in the wheatbelt (Orell & Morris, 1994).

The preferred food sources for the Carnaby's Black-Cockatoo (classed as Endangered under the EPBC Act) are Proteaceae species and they are known to feed on "seeds of hakeas, banksias, grevilleas and eucalypts" (Burbidge, 2004). The Moora area is recognised within the Important Bird Areas listed for Carnaby's Cockatoo as this area is known to comprise significant breeding habitat for this species with breeding pairs known to nest in the area (DEC, 2009). There are some mature York and Salmon Gums within the applied clearing area, the vegetation may provide nesting habitat in the future (DEC, 2009) as well as these species and other Eucalypt species within the applied clearing area providing significant foraging habitat for this species.

Mature trees both with and without hollows are important in providing roosting and nesting sites and as a corridor for indigenous birds including the Western Rosella (Platycercus isterotis xanthogenys, Vulnerable), although appears to be locally extinct from this Shire (DEC, 2007), and the Peregrine Falcon (Falco peregrinus) both species of conservation significance which have been recorded less than 10km from the applied clearing area.

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, 2009b). Given that there is very little vegetation across this landscape, remaining vegetation such as that within road reserves allow for fauna movement and for this reason, because this vegetation is a component of roadside vegetation in an extensively cleared landscape, the vegetation under application may be deemed significant habitat for indigenous fauna.

Given that the proposed clearing area provides foraging habitat for Carnaby's Black-Cockatoo, it is a condition of the permit that an offset will be required to mitigate the loss of this habitat.

Methodology

References:
- Burbidge (2004)
- DEC (2007)
- DEC (2009)
- DEC (2009b)
- Keighery (1994)
- Orell & Morris (1994)

GIS Databases:
- SAC Biodatasets - Accessed 2/09/2009
- Dandaragan 50cm Orthomosaic - Landgate 2004

(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

Nine declared rare flora species have been recorded within the local area (20km radius) on similar vegetation and/or soil types to that of the applied clearing area, with the closest being Eremophila scaberula, recorded approximately 1.2km 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.

Eremophila scaberula inhabits clay, sandy clay or rich loam sites supporting tall open woodland over low open scrub as well as winter-wet plains and appears to be restricted to a small area south of Moora (Brown, 1998 & WA Herbarium). This species has been recorded within the Bindoon-Moora Road reserve and within the vegetation and soil types consistent with the applied clearing area however, this road has had extensive surveys undertaken for this species and individuals have not been recorded within the area applied to be cleared (DEC, 2009).

The other declared rare and priority species within the local area either inhabit different soil types to the applied clearing area or are unlikely to inhabit the applied clearing area due to the 'degraded' (Keighery, 1994) condition and/or the species not having been recorded in this location during extensive surveys which have been undertaken along this road in the past (DEC, 2009).

For these reasons it is unlikely that flora of conservation significance (both rare and priority species) are going to be impacted by the clearing at this location.

Methodology

References:
- Brown (1998)
- DEC (2009)
- Keighery (1994)
- Northcote et al (1960-68)
- WA Herbarium - Accessed 10/09/2009

GIS Databases:
- SAC Biodatasets - Accessed 2/09/2009
- Soils, Statewide - DA

(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 (10km radius) of the applied clearing area - Heath community on chert hills of the Coomberdale Floristic Region (Endangered), approximately 2.5km north-east.

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

Methodology

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

GIS Databases:
- SAC Biodatasets - Accessed 2/09/2009

(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 vegetation under application is located within an extensively cleared agricultural area approximately 2.8km south of the Moora townsite. The proposed clearing area is mapped within the Beard Vegetation Association 142, of which there is 11.4% of the pre-European extent within the Avon Wheatbelt IBRA Region still remaining (Shepherd, 2007).

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

The property lies within the Shire of Moora in the Avon-Wheatbelt IBRA Region which have 15.5% and 15.2% of their pre-European extent remaining respectively (Shepherd, 2007).

The Environmental Protection Authority (EPA) supports a 30% threshold level as recommended in the National Objectives Targets for Biodiversity Conservation; below which species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000). The Beard Vegetation Association 142 within the Avon-Wheatbelt IBRA Bioregion and the current extent of the Avon-Wheatbelt Bioregion are both less than the 30% threshold. The percentages of the current extent of this vegetation association and bioregion in secure tenure are also critically low.

Given the low percentage of native vegetation remaining within the Avon-Wheatbelt Bioregion, the vegetation under application is a critical asset. Conditions to avoid and minimise clearing and an offset condition to mitigate the loss of the under represented Beard vegetation community 142, will be placed on the permit.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregion*				
Avon-Wheatbelt	9,517,109	1,443,690	15.2%	11.06%
Shire*				
Shire of Moora	376,204	58,135	15.5%	23.04%
Beard vegetation type*				
142 (within Avon-Wheatbelt)	561,021	63,729	11.4%	2.92%

*Shepherd (2007).

Methodology

References:
- DEC (2009b)
- Shepherd (2007)

GIS Databases:
- EPA Position Paper No 2 Agriculture Region - DEP
- Interim Biogeographic Regionalisation of Australia - EA
- Local Government Authorities - DOLA
- SAC Biodatasets - Accessed 2/09/2009

(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

The closest mapped wetland to the applied clearing area is a palusplain wetland, approximately 10.7km 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 150m north of the applied clearing area.

A natural perennial pool lies 1.9km east of the applied clearing and the Moore River North Branch is the closest major watercourse (non-perennial) at approximately 2.1km south-west of the applied clearing area.

Given the small scale of the proposed clearing and the distance to watercourses and wetlands within the local area, it is concluded that this proposal is not likely to be at variance to this principle.

Methodology

GIS Databases:
- Geomorphic wetlands (Mgt Categories), Swan Coastal Plain
- Hydrography, linear (hierarchy) - DoW
- Hydrography, linear - DoW

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments

Proposal is not likely to be at variance to this Principle

The mapped soil type for this site is described as having chief soils of hard alkaline yellow mottled soils with some associated areas of gilgai and cracking clays (Northcote et al., 1960-68).

The majority of the applied clearing area has a low risk of salinity with the northern and southern tips reaching medium to high risk respectively and the groundwater salinity is mapped as 7000-14000mg/L total dissolved solids.

The mean annual rainfall is 500mm and the average evaporation rate is between 2200 and 2400mm per year.

The applied clearing area has ranges in topography from 200 - 210m AHD and is of a low relief.

The local area (20km radius) of the applied clearing area is already extensively cleared. Further removal of deep rooted vegetation could contribute to the long term cumulative effects of clearing, including rising groundwater levels causing a deterioration of groundwater quality and surface water quality within the local area.

Given these factors, the removal of deep rooted vegetation upland of the Yadgena Brook may result in an increase in salinity levels within the local vicinity of the applied clearing area and subsequently within the brook. However, given the small scale (0.3ha) and 'degraded' (Keighery, 1994) condition of the proposed clearing, it is not likely that the proposal will result in appreciable land degradation.

It is therefore concluded that the proposal is not likely to be at variance to this principle.

Methodology

References:
- Keighery (1994)
- Northcote et al (1960-68)

GIS Databases:
- Groundwater Salinity, Statewide - DoW
- Hydrography, linear - DoW
- Salinity Risk LM 25m - DOLA
- Soils, Statewide - DA
- 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 DEC managed conservation areas occur within the local area (10km radius) of the applied clearing area. A Class C Nature Reserve approximately 65m east, a Class C Nature Reserve approximately 6.5km south and the Karamarra Class A Nature Reserve approximately 9.3km 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 located between the proposed clearing area and the closest conservation area.

Therefore, although the vegetation is a component of a strip of native vegetation and 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, it is concluded that the proposal is unlikely to impact on nearby conservation areas.

Methodology

References:
- Keighery (1994)

GIS Databases:
- CALM Managed Lands and Waters - DEC
- SAC Biodatsets - Accessed 2/09/2009
- Dandaragan 50cm Orthomosaic - Landgate 2004

(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

The applied clearing area lies within the Moore River Hydrographic Catchment within the Moore-Hill Rivers Basin. The closest watercourse to the applied clearing area is the Yadgena Brook, a minor non-perennial river, and tributary of the Moore River, which runs approximately 150m north of the applied clearing area.

A natural perennial pool lies 1.9km east of the applied clearing and the closest mapped wetland is a palusplain wetland (not assessed for management category) approximately 10.7km south of the applied clearing area.

Groundwater salinity is mapped as 7000-14000mg/L total dissolved solids and the majority of the site is mapped as having a low salinity risk with the northern and southern ends reaching a high risk.

The further clearing of deep rooted native vegetation within an already extensively cleared landscape and from a site slightly upland of Yadgena Brook, may cause deterioration in the quality of water sources within the local area through causing groundwater levels to rise, increasing the salinity both in the groundwater and nearby watercourses such as Yadgena Brook.

It is therefore concluded that the proposal may be at variance to this principle.

Methodology GIS Databases:
- Groundwater Salinity, Statewide - DoW
- Hydrographic Catchments - Catchments - DoW
- Hydrography, linear (hierarchy) - DoW
- Hydrography, linear - DoW
- Salinity Risk LM 25m - DOLA
- Topographic Contours, Statewide

(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 applied clearing area has a topography ranging from approximately 200-210m AHD and is of a low relief.

The closest watercourse is the Yadgena Brook, a tributary of the Moore River, which runs approximately 150m north of the applied clearing area. The Moore River North Branch is the closest major watercourse and runs approximately 2.1km south-west of the applied clearing area.

Although there may be an increase in surface water run-off due to the removal of deep-rooted trees, the small scale of clearing at this site (up to 0.3ha) and the 'degraded' (Keighery, 1994) condition of the vegetation means the proposed clearing is unlikely to cause, or exacerbate, the incidence or intensity of flooding.

Methodology References:
- Keighery (1994)

GIS Databases:
- Hydrography, linear (hierarchy) - DoW
- Hydrography, linear - DoW
- Topographic Contours, Statewide

Planning instrument, Native Title, 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, 2009).

The vegetation under application is within a reserve zoned 'Road' under the Town Planning Scheme and designated as 'Public Roads' within the cadastral purpose.

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 vegetation under application is located within the agricultural area defined in the EPA Position Statement No. 2 (EPA 2000). EPA Position Statement No. 2 (EPA, 2000) states that significant clearing of native vegetation has already occurred within this area, leading to a reduction in biodiversity. Therefore, the EPA would only consider supporting clearing proposals in the agricultural area in exceptional circumstances where the area proposed to be cleared is relatively small, and the proposed land use addresses alternative mechanisms for protection of biodiversity (EPA, 2000).

The applied clearing area is located within the Gingin Groundwater Area proclaimed under the Rights in Water and Irrigation Act 1914, whereby 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.

The Moora Grain Store offset site is located at Lot 4300 Wheatbin Road, Moora, approximately 90m east of the applied clearing area on the other side of the railway and road reserves. The location and small scale of the proposed clearing is unlikely to impact upon this offset site.

Methodology References:
- Bulkwest Engineering Pty Ltd (2009)
- EPA (2000)
- Main Roads WA (2009)
- Shire of Moora (2009)

GIS Databases:
- Cadastre - Landgate
- RIWI Act, Groundwater Areas - DoW
- SAC Biodatsets - Accessed 2/09/2009
- Town Planning Scheme Zones

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing is at variance to Principles (e) may be at variance to Principles (a), (b) and (i) and not likely to Principles (c), (d), (f), (g), (h) and (j).

5. 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 (2009) Application for a Clearing Permit (Purpose Permit), Bulkwest Engineering Pty Ltd CBH Group. Perth, Western Australia.

Burbidge, A. (2004) Threatened Animals of Western Australia, Department of Conservation and Land Management, Perth, Western Australia.

DEC (2007) DEC Fauna Notes 24. Western Rosella. Last Updated 12 December 2007. Department of Environment and Conservation, Western Australia.

DEC (2009) Regional Advice for Clearing Permit Application CPS 3266/1, Bindoon-Moora Road and Webb Street road reserves, Moora. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC97784).

DEC (2009b) Roadside Conservation Committee Advice for Clearing Permit Application CPS 3266/1, Bindoon-Moora Road and Webb Street road reserves, Moora. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC97148).

EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority, Western Australia.

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. TRIM 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.

Orell, P. & Morris, K. (1994) Chuditch Recovery Plan 1992-2001. Western Australian Wildlife Research Centre, Department of Conservation and Land Management, Wanneroo, 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.

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. TRIM ref DOC93154.

Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and Conservation. http://florabase.dec.wa.gov.au/ (Accessed 10/09/2009).

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 (now DEC)
DoW	Department of Water
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 DoW)