GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3257/1
Permit Holder:	Bulkwest Engineering Pty Ltd
Duration of Permit:	24 October 2009 – 24 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**
   Goomalling – Wyalkatchem Road Reserve (Locally known as Goomalling – Merredin Road) (UCARTY 6462) PIN 11720978
   Rifle Range Road Reserve (UCARTY 6462) PIN 11718937
   Cowper Road Reserve (UCARTY 6462) PIN 11718856
   Irvine Road Reserve (DOWERIN 6461) PIN 11720979
   Lot 111 on Plan 150021 (UCARTY 6462)

3. **Area of Clearing**
   The Permit Holder must not clear more than 0.93 hectares of native vegetation within the area hatched yellow on attached Plan 3257/1.

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. Dieback and weed control

(a) When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:
   (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
   (ii) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
   (iii) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

(b) At least once in each 12 month period for the *term* of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas cleared under this Permit.

8. Flora management

(a) Prior to undertaking any clearing authorised under this Permit, the site shall be inspected by a *flora specialist* for the presence of *Cryptandra dielsii*

(b) Where *priority flora taxa* are identified in relation to condition 8(a) of this Permit, the Permit Holder shall ensure that:
   (i) all records of *priority flora taxa* are submitted to the CEO; and
   (ii) no clearing occurs with 10 metres of identified *priority flora taxa*, unless approved by the CEO.

9. Offsets

If part or all of the clearing to be done is or may be at variance with one or more of the clearing principles, then the Permit Holder must implement an *offset* in accordance with conditions 9(a) and 9(b) of this Permit with respect to that 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 9(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 9(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

10. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit in relation to the clearing of native vegetation authorised under this Permit:

(a) In relation to flora management pursuant to condition 8 of this Permit:
   (i) the location of each priority flora species recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; and
   (ii) the species name of each priority flora species identified.

(b) In relation to the offset of areas pursuant to condition 9:
   (i) 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;
   (ii) a description of the offset activities undertaken; and
   (iii) the size of the offset area (in hectares).

11. 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 10 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 24 July 2014, the Permit Holder must provide to the CEO a written report of records required under condition 10 of this Permit where these records have not already been provided under condition 11(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;

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

flora specialist means a person with specific training and/or experience in the ecology and taxonomy of Western Australian flora;

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 9 of this Permit;

offset proposal means an *offset* determined by the Permit Holder in accordance with condition 9 of this Permit;

priority flora taxa means those plant taxa that described as priority flora classes 1, 2, 3 or 4 in the *Department*'s *Declared Rare and Priority Flora List for Western Australia* (as amended).

term means the duration of this Permit, including as amended or renewed;

weed/s means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*

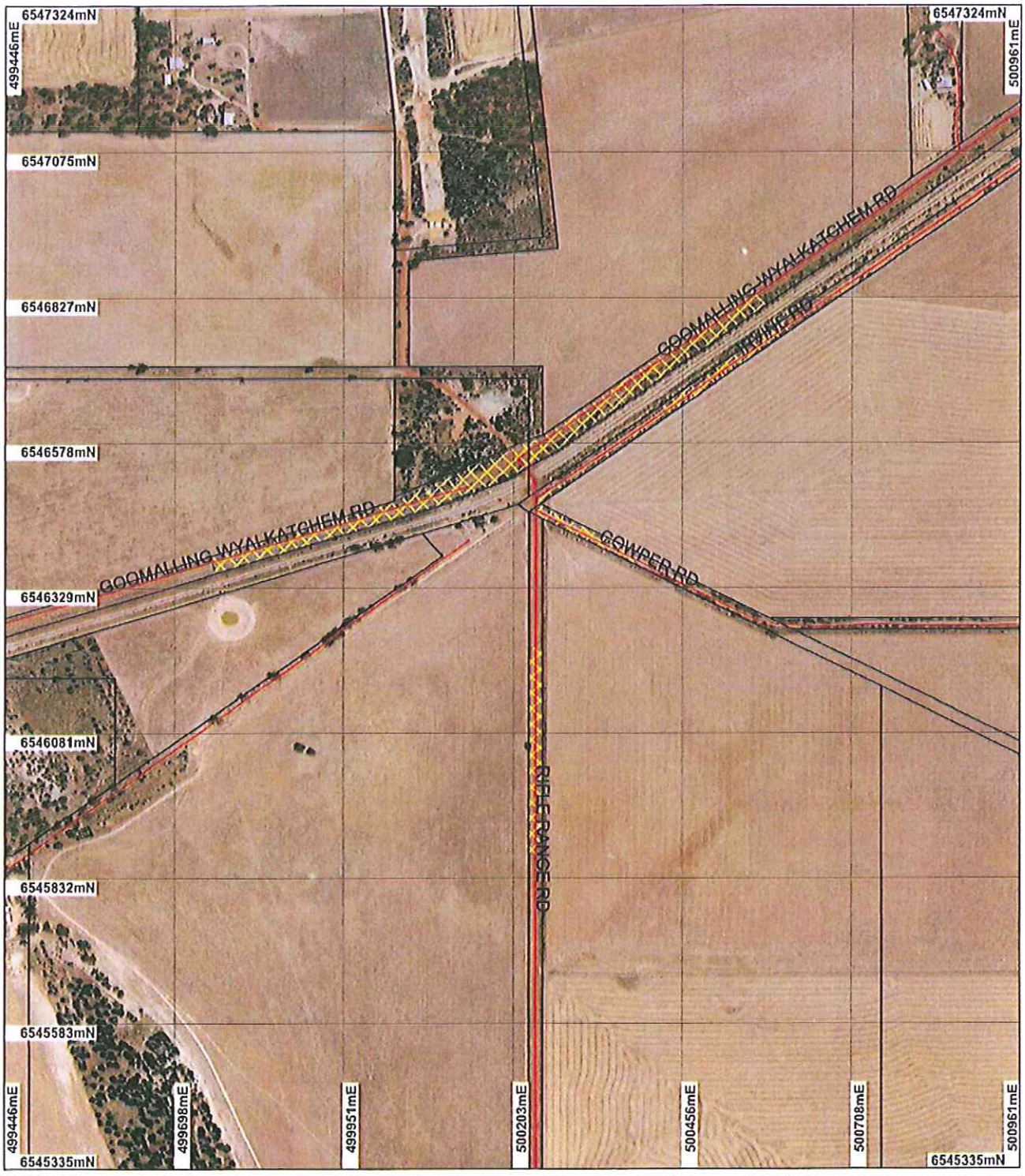
Keith Claymore

Keith Claymore
A/ ASSISTANT DIRECTOR
NATURE CONSERVATION DIVISION

Officer delegated under Section 20
of the Environmental Protection Act 1986

24 September 2009

Plan 3257/1



LEGEND

Clearing Instruments
- Areas Approved to Clear
- Road Centrelines
- Cadastre

Goomalling 50cm Orthomosaic - Landgate 2006

N

0 250 m

Scale 1:8929
(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 24/9/09

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 acknowledged by the agency acronym in the legend.

Department of Environment and Conservation
Our environment, our future

* 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.: 3257/1

Permit type: Purpose Permit

1.2. Proponent details

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

1.3. Property details

Property:
ROAD RESERVE (UCARTY 6462)
ROAD RESERVE (UCARTY 6462)
ROAD RESERVE (DOWERIN 6461)
ROAD RESERVE (DOWERIN 6461)
LOT 111 ON PLAN 150021 (UCARTY 6462)
ROAD RESERVE (UCARTY 6462)

Local Government Area:

Colloquial name:

1.4. Application

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

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 application area is mapped as being composed of Beard vegetation association 1049: Medium woodland; wandoo, York gum, salmon gum, morrel & gimlet	Four vegetation units were identified during a level one survey conducted by Cardno BSD (2007). These include: 1. a shrubland to thicket of Allocasuarina campestris with Grevillea hookeriana subsp. hookeriana and Exocarpos aphyllus over Ecdeicolea monostachya and Dampier lavandulacea on hard-set yellow clay loams 2. a shrubland of Allocasurina campestris with Santalum acuminatum over Dampiera lavandulacea, Mirbelia trichocalyx, Baeckea crispiflora over Ecdeiocolea monostachya and Waitzia acuminata var. acuminate on yellow clay loams. 3. a grassland of disturbed road and rail verges dominated by Avena barbata, Eragrostis curvula, Bromus rubens with Brassica sp. and occasional shrubs of Allocasuarina campestris, Grevillea hookeriana subsp. hookeriana, Acacia	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The description and condition of the vegetation under application was determined via the use of aerial mapping systems and a level one flora survey conducted by Cardno BSD (2007).

	dielsii and Acacia multispicata. 4. a grassland of disturbed road verges dominated by Eragrostis curvula, Austrostipa scabra, Avena barbata with Ptilotus polystachyus and occasional shrubs of Allocasuarina campestris, Baeckea crispiflora, Hakea scoparia subsp. scoparia and Dampiera lavandulacea. The vegetation is considered to be in a completely degraded (Keighery, 1994) condition within the road and railway verges. Avena barbata and Eragrostis curvula are the dominant weeds within these verges. Vegetation unit 1 (as listed above) is mostly in an excellent (Keighery, 1994) condition, except for a small section near the western boundary of the site which is considered to be in a good (Keighery, 1994) condition. The vegetation unit 2 is also considered to be in an excellent (Keighery, 1994) condition (Cardno, 2007), however only a small portion of this vegetation unit is expected to be impacted by the proposed clearing.		
As above	As above	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	As above
As above	As above	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	As above

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

Proposal may be at variance to this Principle

The proposed clearing of 0.93 hectares of native vegetation is for the purpose of road re-alignment and widening. The vegetation under application, for the most part, is considered to be in completely degraded (Keighery, 1994) condition within the road and railway verges (Cardno, 2007). Avena barbata and Eragrostis curvula are the dominant weeds within these verges (Cardno, 2007). Due to the presence these weed species, weed control conditions will be place on the permit.

There are adjacent areas of vegetation that are in excellent (Keighery, 1994) condition as well as areas that are considered to be in good (Keighery, 1994) condition (Cardno, 2007). The vegetation in excellent condition is not expected to be impacted greatly; however precautions should be taken to minimise impact these areas.

The bioregion and Shire are both extensively cleared and the local area (10km radius) has less than 1% of native vegetation remaining. The roadside vegetation under application has been mapped as consisting of a mosaic of conservation values, ranging from low to high and is extremely important in a highly cleared landscape, providing connectivity with remaining remnants (DEC, 2009c).

The priority three species, Cryptandra dielsii, was recorded on the south side of the railway line and to the east of the junction of Goomalling-Wyalkatchem road with Rifle Range road (Cardno, 2007). Apart from this species, it is considered that there is a low potential for any other flora species of conservation significance to be impacted by the proposed clearing (DEC, 2009a).To reduce the impacts of clearing on C.dielsii, flora management conditions will be imposed on the permit.

Although the proposed cleared area is small in size (0.93ha) and the vegetation is mostly in degraded condition, due to the highly cleared landscape, the vegetation under application may be of conservation significance for biodiversity at a local and regional scale (DEC, 2009b).

Methodology

Cardno (2007)
DEC (2009a)
DEC (2009b)
DEC (2009c)
Keighery (1994)
GIS DataSets:
- CALM Managed Lands and Waters - CALM 01/06/05
- Goomalling 50cm Orthomosaic (14/02/08)
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 7 September 09
- Soils, Statewide DA 11/99

(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

No rare fauna species have been recorded within the local area (10km radius). While the condition of the majority of the vegetation within the road and rail verges is in completely degraded (Keighery, 1994) condition (Cardno, 2007) and the size of the proposed clearing is small (0.93ha), due to the highly cleared landscape the significance of the vegetation under application is of increased importance.

This being considered, the proposed clearing may be at variance to this principle. To reduce the impacts clearing may have on the availability of fauna habitat in the local area, offset conditions will be imposed on the permit.

Methodology

Cardno (2007)
Keighery (1994)
GIS DataSets:
- SAC Biodatasets - accessed 7 September 09

(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

A level one flora survey of the applied area and vicinity conducted by Cardno BSD (2007) did not record any rare flora within the application area. It is therefore considered that there is a low potential for any flora species of conservation significance to be impacted by the proposed clearing (DEC, 2009a).

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

Methodology

Cardno (2007)
DEC (2009a)
GIS DataSets:
- Goomalling 50cm Orthomosaic (14/02/08)
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 7 September 09
- Soils, Statewide DA 11/99

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments

Proposal is not likely to be at variance to this Principle

The closest recorded Threatened Ecological Community (TEC) is a community of Perched wetlands of the Wheatbelt region with extensive stands of Casuarina obesa and Melaleuca strobophylla. This TEC is located 3.8km south east of Rifle Range road.

Given the distance and differing vegetation complex to the applied area, it is considered unlikely that the proposed clearing of mostly completely degraded vegetation within road and rail verges is necessary for the

continued existence of a TEC.

Methodology GIS DataSets:
- Goomalling 50cm Orthomosaic (14/02/08)
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 7 September 09
- Soils, Statewide DA 11/99

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

Comments

Proposal is at variance to this Principle

As the below table indicates, the beard vegetation association mapped as occurring within the applied areas (1049) has a remaining percentage less than the EPA supported threshold level (30%) recommended in the National Objectives Targets for Biodiversity Conservation; below which species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000). The bioregion and Shire are both extensively cleared (15.17 & 4.24% remaining respectively) and the local area (10km radius) has less than 1% of native vegetation remaining. The roadside vegetation under application has been mapped as consisting of a mosaic of conservation values which range from low to high and is extremely important in a highly cleared landscape, providing connectivity with remaining remnants (DEC, 2009c).

There are areas of vegetation lying adjacent to the applied area that are considered to be in excellent (Keighery, 1994) condition although the majority of the vegetation within the road and rail verges is in completely degraded (Keighery, 1994) condition, with only small sections of the applied areas being in good (Keighery, 1994) condition (Cardno, 2007). This vegetation is significant as a remnant in a highly cleared landscape and the proposed clearing is considered to be at variance to this principle. To mitigate this, offset conditions will be placed on the permit.

.	Pre-European (ha)	Current extent (ha)	Remaing (%)	% In reserves DEC Managed Land
IBRA Bioregions*				
Avon Wheatbelt	9,517,109.60	1,443,690.42	15.17	11.06
Shire*				
Dowerin	186,312	7,899	4.24	16.95
Beard Vegetation Association within Bioregion*				
1049	833,384	30,023	3.6	9.06

* (Shepherd 2007)

Methodology
Cardno (2007)
DEC (2009b)
DEC (2009c)
EPA (2000)
Keighery (1994)
Shepherd (2007)
GIS DataSets:
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 7 September 09

(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

The Mortlock River (east branch) is located 600 metres south west of Rifle Range road and there are 8 - 10 non-perennial lakes located within 5km of the application area. The closest of which, is situated 1.2km south west of the western end of Goomalling-Wyalkatchem road.

There is a minor non-perennial watercourse that encroaches the applied area at the western end of Goomalling-Wyalkatchem road. To reduce impacts on this watercourse a 30 metre vegetated buffer will be required as a condition of the permit.

Methodology GIS DataSets:

- Goomalling 50cm Orthomosaic (14/02/08)
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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 soil types mapped within the applied areas are described as gently undulating to rolling terrain with some ridges and uneven slopes; and with the variable presence of lateritic mesas and buttes and granitic tors and bosses: chief soils are hard alkaline yellow mottled soils and hard alkaline red, either of which may be dominant locally (Northcote et al. 1960 -68). Mean annual rainfall is 400mm and the elevation of the areas ranges from 260 - 270 metres. There is only a small stretch of Goomalling-Wyalkatchem road (approximately 900 metres in length) that has a salinity risk category of medium to high. The remainder of the application area has low or no salinity risk.

Due to the small size of the proposed clearing (0.93ha) and given the installation of water diversion structures such as culverts will be used post clearing, it is considered unlikely that appreciable land degradation will result.

Methodology

Northcote et al (1960 - 68)
GIS DataSets:
- Average Annual Rainfall Isohyets - WRC 29/09/98
- Salinity Risk LM 25m - DOLA 00
- Soils, Statewide DA 11/99
- Topographic contours statewide - DOLA and ARMY 12/09/02
- Hydrogeology, Statewide 05 Feb 2002

(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 is an un-named nature reserve located 8.2km north east of eastern end of Goomalling-Wyalkatchem road. This is the only conservation area within the local area (10km radius).

It is considered unlikely that the proposed clearing will impact on the environmental values of conservation areas, especially when considering the size of the proposed clearing (0.93ha), the distance from conservation areas and the mostly completely degraded (Keighery, 1994) condition of the vegetation under application (Cardno, 2007; DEC, 2009b).

Methodology

Cardno (2007)
DEC (2009b)
Keighery (1994)
GIS DataSets:
- CALM Managed Lands and Waters - CALM 01/06/05
- Goomalling 50cm Orthomosaic (14/02/08)

(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 application area lies within the Swan-Avon Mortlock Catchment, where the hydrogeology consists of rocks of low permeability, fractured and weathered rocks. Groundwater Salinity is greater than 35 000 mg/L and the soils are described as gently undulating to rolling terrain with some ridges and uneven slopes; and with the variable presence of lateritic mesas and buttes and granitic tors and bosses: chief soils are hard alkaline yellow mottled soils and hard alkaline red, either of which may be dominant locally (Northcote et al. 1960 - 68).

Given that the groundwater salinity is already excessively high, the proposed clearing of 0.93 hectares of native vegetation spread over four road reserves is unlikely to result in a significant increase in groundwater salinity.

The Mortlock River (east branch) is located 600 metres south west if Rifle Range road and there 8 - 10 non-perennial lakes located within 5km of the application area. The closest is situated 1.2km south west of the western end of Goomalling-Wyalkatchem road. While these water bodies are unlikely to be impacted by the proposed clearing, there is a minor non-perennial watercourse that encroaches the applied area at the western end of Goomalling-Wyalkatchem road. To reduce impacts on this watercourse and the flow through effects on other watercourses nearby, a 30 metre vegetated buffer will be required as a condition of the permit.

Methodology

Northcote et al (1960 - 1968)
GIS DataSets:
- Groundwater Salinity Statewide DoW 13/07/06
- Hydrogeology, statewide - DOW 13/07/06

- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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 soils of the applied areas are described as gently undulating to rolling terrain with some ridges and uneven slopes; and with the variable presence of lateritic mesas and buttes and granitic tors and bosses: chief soils are hard alkaline yellow mottled soils and hard alkaline red, either of which may be dominant locally (Northcote et al. 1960 - 1968). Mean annual rainfall is 400mm and the elevation of the areas ranges from 260 - 270 metres. There is the potential for short term flooding events to occur as the filtration level the application areas soils are poor, however, due to the small size of the proposed clearing (0.93ha) and given the installation of water diversion structures such as culverts will be used post clearing, it is considered unlikely that flooding will result

Methodology

Northcote et al (1960 - 1968)
GIS DataSets:
- Average Annual Rainfall Isohyets - WRC 29/09/98
- Hydrogeology, Statewide 05 Feb 2002
- Soils, Statewide DA 11/99
- Topographic contours statewide - DOLA and ARMY 12/09/02

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

Comments

The area under application falls within EPA Position Statement No.2 agricultural area, which has a general presumption against clearing within this area for agricultural purposes (EPA, 2000), however the purpose of the clearing is for road realignment and widening.

The Shire of Dowerin has given consent for the proposed clearing to occur within the road reserves (Trim Ref: DOC96083 & DOC96087).

State Land Services have no objection to the clearing occurring within state owned land (Trim Ref: DOC94110

Methodology

4. Assessor's comments

Comment

The clearing application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986 and has found:

- Principles (c), (d), (g), (h) & (j) are not likely to be at variance
- Principle (a), (b), (f) & (i) may be at variance
- Principle (e) is at variance

5. References

Cardno BSD (2007) Re-alignment of the junction of Goomalling-Wyalkatchem Road and Rifle Range Road, Dowerin, Flora and vegetation survey, December 2007. Trim Ref: DOC92730

DEC (2009a) Flora Advice. Department of Environment and Conservation Trim Ref DOC97017

DEC (2009b) Wheatbelt Region Advice. Department of Environment and Conservation Trim Ref DOC97024

DEC (2009c) Roadside Conservation Council Advice. Department of Environment and Conservation Trim Ref: DOC97019

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.

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.

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.

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)