



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3101/1
Permit Holder:	Shire of Brookton
Duration of Permit:	11 July 2009 – 11 July 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 realignment.

2. Land on which clearing is to be done

Corberding Road Reserve, Brookton
Lot 150 on Plan 300066 Corberding Rd, Brookton
Lot 2899 on Plan 257299 Corberding Rd, Brookton

3. Area of Clearing

The Permit Holder must not clear more than 1 hectare of native vegetation within the area hatched yellow on attached Plan 3101/1a.

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. Type of clearing authorised

This Permit authorises the Permit Holder to clear native vegetation for activities to the extent that the Permit Holder has the power to clear native vegetation for those activities under the *Local Government Act 1995* or any other written law.

6. 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

7. 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.

8. Revegetation and rehabilitation

- (a) Within 12 months of the area no longer being required for road realignment the Permit Holder must *revegetate* and *rehabilitate* the area cross-hatched red on attached Plan 3101/1b by:
 - (i) deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area; and
 - (ii) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area.
- (b) Within twelve months of undertaking *revegetation* and *rehabilitation* in accordance with condition 8(a) of this Permit, the Permit Holder must:
 - (i) determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
 - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 8(a)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the Permit Holder must undertake additional *planting* or *direct seeding* of native vegetation in accordance with the requirements of condition 8(a)(i) and (ii) of this Permit.

PART III - RECORD KEEPING AND REPORTING

9. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
 - (i) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
 - (ii) the date that the area was cleared; and
 - (iii) the size of the area cleared (in hectares).
- (b) In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 8 of this Permit:
 - (i) the location of any areas *revegetated* and *rehabilitated*, 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 *revegetation* and *rehabilitation* activities undertaken;
 - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares); and
 - (iv) the species composition, structure and density of *revegetation* and *rehabilitation*.

10. 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 9 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 11 April 2014, the permit holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

Definitions

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

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

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;

local provenance means native vegetation seeds and propagating material from natural sources within 10-40 kilometres of the area cleared.

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

regenerate/ed/ion means *revegetation* that can be established from in situ seed banks contained either within the topsoil or seed-bearing *mulch*;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

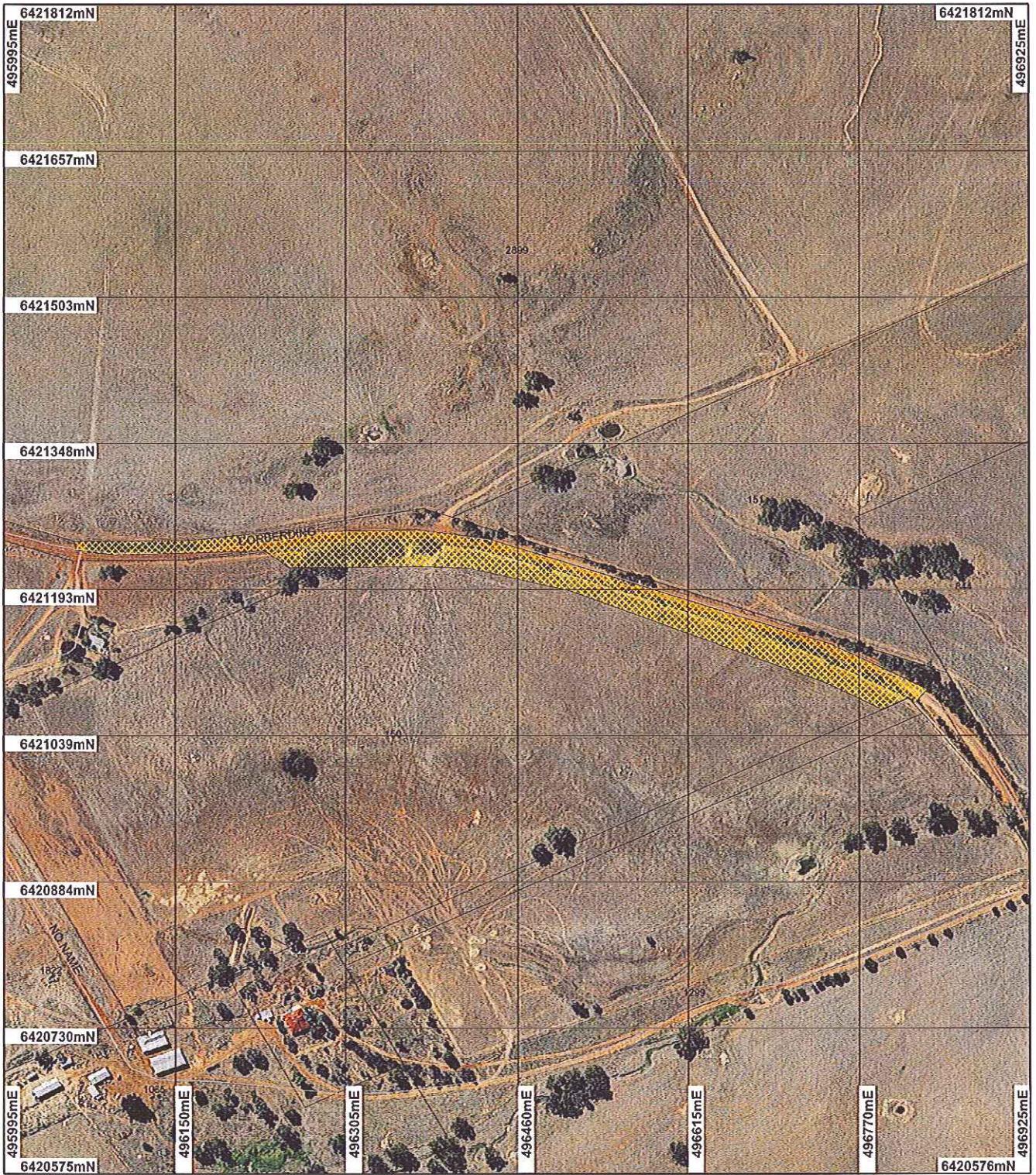


Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

11 June 2009

Plan 3101/1a



LEGEND

- Cadastre for labelling
- Road Centrelines
- FW
- HY
- LRO (cont)

- LRS
- MR
- N
- TR
- Clearing Instruments
- Areas Approved to Clear

Beverley 50cm Orthomosaic - Landgate 2006



0 ~150 m

Scale 1:5462
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

K. Faulkner Date 11/6/09
K. Faulkner

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.

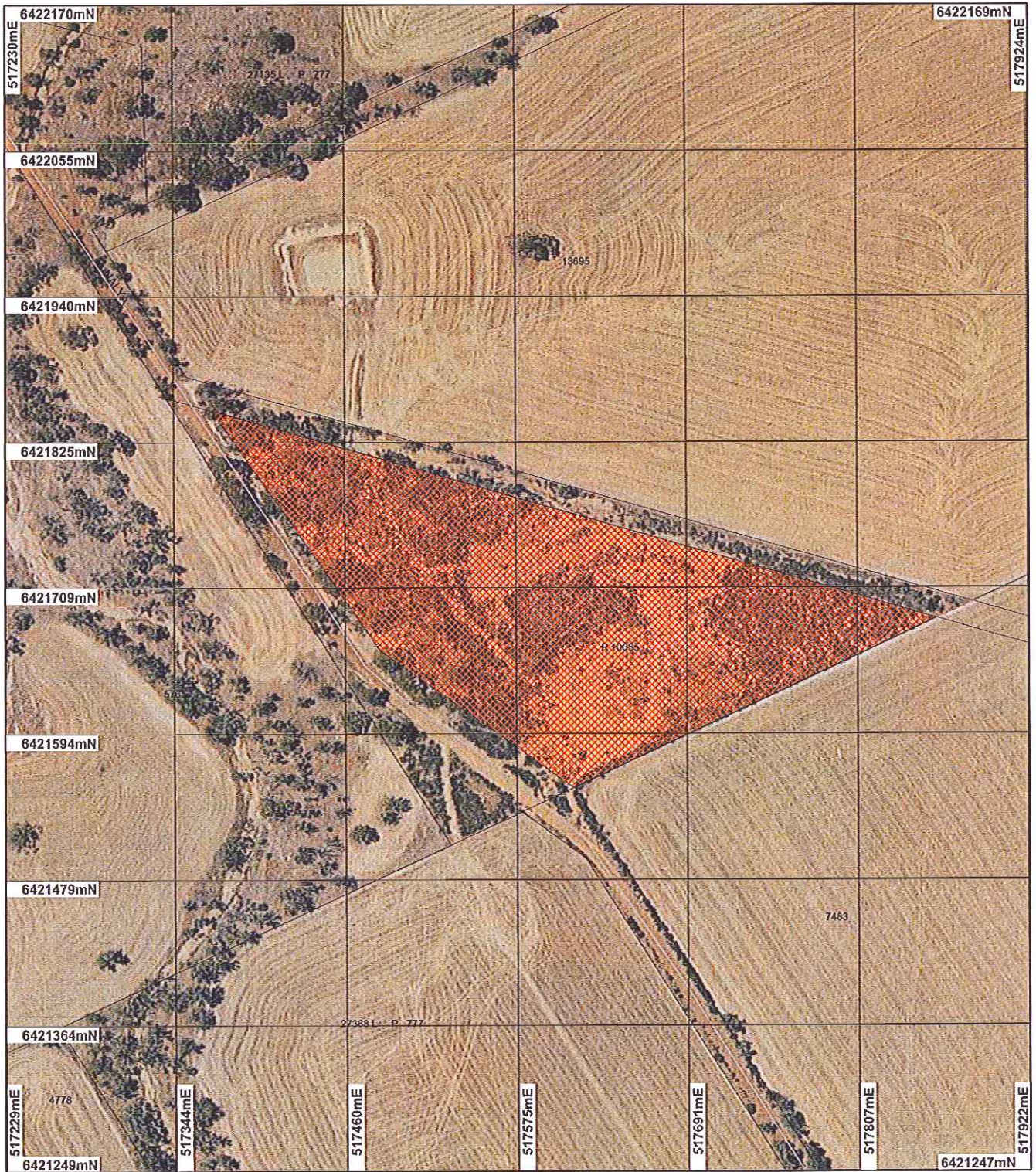


Department of Environment and Conservation

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

Plan 3101/1b



LEGEND

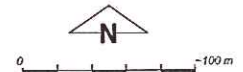
- Cadastre for labelling
- Road Centrelines
- FW
- HY (cont)

- LRO
- LRS
- MR
- N
- TR

Clearing Instruments

- Areas Applied to Clear
- Areas Subject to Conditions
- Areas Approved to Clear

Brookton 80cm Orthomosaic - Landgate 2005



Scale 1:4072
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

K. Faulxner Date 11/6/09

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.



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1. Application details

1.1. Permit application details

Permit application No.: 3101/1
 Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Brookton

1.3. Property details

Property: ROAD RESERVE (BROOKTON 6306)
 LOT 2899 ON PLAN 257299 (CORBERDING BROOKTON 6306)
 LOT 150 ON PLAN 300066 (BROOKTON 6306)

Local Government Area: Shire Of Brookton
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1		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 Complex: 352: Medium woodland; York gum (Shepherd 2007)	The proposal is to clear 1ha of native vegetation within Corberding road reserve and Lot 105 and 2899 Coberding Road, in the Shire of Brookton for the purpose of road realignment. The vegetation under application consists of predominantly Jam (<i>Acacia acuminata</i>), <i>Allocasuarina</i> sp and York Gum (<i>Eucalyptus loxophleba</i>) trees over pasture weeds and occurs in a degraded condition.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation clearing description based on a site visit conducted by DEC officers on 21 May 2009.

3. Assessment of application against clearing principles

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

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

The vegetation under application consists of predominantly Jam (*Acacia acuminata*), *Allocasuarina* sp and York Gum (*Eucalyptus loxophleba*) trees over pasture weeds and occurs in a degraded condition (DEC 2009).

The vegetation under application is associated with Beard Vegetation Association 352 which there is approximately 14.02% pre-European extent remaining (Shepherd 2007) and may be considered as a significant remnant.

However, given the lack of native understorey and hollows, the degraded condition of the vegetation and the lack of landscape connectivity to other areas of native vegetation in the local area, it is not considered likely for the proposed clearing to provide significant habitat for local fauna.

Therefore, given the small and linear area to be cleared (1ha) lack of fauna habitat and low flora diversity, it is not considered likely for the proposed clearing to be at variance to this Principle.

Methodology **References**

- DEC (2009)
- Shepherd (2007)
- Gis Databases
- SAC Bio Databases (19/05/09)

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

Comments **Proposal is not likely to be at variance to this Principle**
There are two fauna species of conservation significance recorded within the local area (~10km radius) including the Quenda (P5, *Isodon obesulus fusciventer*) and Southern Death Adder (P3, *Acanthopis antarcticus*).

The vegetation under application consists of Jam, Allocasuarina and York Gum trees over pasture weeds in a degraded condition. No hollows were observed during the site inspection (DEC 2009).

Aerial photography shows that the area under application is not likely to provide connectivity through the landscape or be significant habitat for fauna.

Given the small and linear area to be cleared (1 ha), the lack of understorey and hollows and the degraded condition of the vegetation under application it is not considered likely for the proposed clearing to be at variance to this Principle.

Methodology **References**
-DEC (2009)
Gis Databases
- Beverley 50cm Orthomosaic - Landgate 2006
- SAC Bio Databases (19/05/09)

(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**
There are four Rare flora species occurring in the local area (~10 km radius) being *Lasiopetalum rotundifolium*, *Thomasia montana*, *Caladenia williamsiae* and *Hakea aculeata* occurring 2.7 km south, 4.5km southeast, 7km east and 7.1km north of the area under application, respectively.

Lasiopetalum rotundifolium, *Caladenia williamsiae*, *Thomasia montana* are found in wandoo woodland (Brown et al. 1998, Western Australian Herbarium 1998-). However, the area under application consists of York Gum, Allocasuarina and Acacia over pasture weeds in a degraded condition (DEC 2009).

Hakea aculeata is known to inhabit scrub and tall shrubland and also weed-choked road reserves, however, it occurs on pale loamy soil and gravelly soil (Brown et al. 1998). The chief soils in the area under application are hard neutral red soils and acidic red soils and are associated with ironstone gravels (Northcote et al. 1960-68).

Given the degraded condition of the vegetation under application and that the Rare flora species found in the local area occur on different vegetation and soil types, it is not considered likely for the proposed clearing to be at variance to this Principle.

Methodology **References**
-Brown et al. (1998)
-DEC (2009)
-Northcote et al. (1960-68)
- Western Australian Herbarium (1998-)
GIS Databases
-SAC Bio Databases (19/05/09)

(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**
No Threatened Ecological Communities (TEC) have been recorded in the local area (~10 Km radius). The closest TEC is Perched Wetlands of the Wheatbelt Region with Extensive Stands of *Casuarina obesa* and *Melaleuca strobophylla*, recorded 17.6km north of the area under application.

The area under application contains York gums and Jam in a degraded condition (DEC 2009). No wetland vegetation was identified during the site visit.

Given the distance to the nearest TEC, the degraded condition of the vegetation and the lack of wetland vegetation observed within the area under application (DEC 2009), it is not considered likely for the proposed clearing to be at variance to this Principle.

Methodology **References**
-DEC (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 associated with Beard Vegetation Association 352 which there is approximately 14.02% pre-European extent remaining in the Avon Wheatbelt Bioregion (Shepherd 2007).

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents a clearance of ecological communities with an extent below 30% of that present pre-European settlement (Commonwealth of Australia 2001). The area under application occurs within a Beard Vegetation Association which is below the State Governments target of 30%. In addition, the areas under application occur within the Avon Wheatbelt IBRA Bioregion which has less than 15.17 % of pre European vegetation extent remaining.

The clearing is also within the Intensive Land-use Zone (Shepherd et al, 2001) and is located in the 'agricultural area' defined in EPA Position Statement No. 2 (EPA, 2000). Significant clearing of native vegetation has already occurred within this area and 'from an environmental perspective the EPA is of a view that it is unreasonable to expect to be able to continue to clear native vegetation from land within the agricultural area'. (EPA, 2000). In addition, there is only 8.7% of pre - European vegetation left in the local area (~5km radius) and only 15.7% in the whole Shire of Brookton.

The area under application contains vegetation in a degraded condition however, it contains York Gums (*Eucalyptus loxophleba*) and *Acacia acuminata* which are characteristic of Beard Vegetation Association 352, therefore, it is considered that the proposed clearing is at variance to this Principle. A revegetation condition will be placed on the permit to mitigate this impact.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregion*				
Avon Wheatbelt	9 517 109	1 443 690	15.17	11.0
Shire of Brookton*	160 119	25343	15.7	60.0
Local Area (~5km radius)	7850	682	8.7	
Beard vegetation type*				
352 within Avon Wheatbelt	630 581	88 397	14.02	11.4

* (Shepherd, 2007)

Methodology References
 -Commonwealth of Australia (2001)
 -EPA (2000)
 -Shepherd (2007)
 GIS Database
 - NLWRA Current Extent of Native Vegetation
 - SAC Bio Databases (19/05/09)

(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 is not likely to be at variance to this Principle

The closest wetland to the area under application occurs 2.1 km south and the closest watercourse, a minor non-perennial stream, occurs within the southwest portion of the area under application. In addition, tributary of the Avon River occurs 2.6 km northeast of the area under application.

Minor non-perennial watercourses are utilised for drainage flow during significant rainfall events, and thus are generally considered unlikely to contain wetland dependant vegetation.

In addition, a site inspection (DEC 2009) did not identify any wetland dependent vegetation associated with any of the areas under application. Given the vegetation generally consists of York Gum, *Acacia* spp. and *Allocasuarina* sp. over pasture weeds, the vegetation is not considered to be wetland dependant and the proposed clearing is not considered likely to be at variance to this Principle.

Methodology References

- DEC (2009)
- Gis Databases
- Hydrography, linear
- Hydrography, linear (hierarchy)
- Wheatbelt_Wetlands

(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 soils identified within the areas under application included; hard neutral red soils and acidic red soils and possibly similar related soils and are associated with soils containing ironstone gravels (Northcote et al. 1960-68).

The majority of the applied area is associated with low salinity. Given this and that the vegetation under application is relatively small in size (1 ha), is in a long linear shape (~85m) and is in an area that has already been extensively cleared, it is not considered likely that the proposed clearing to have an impact on salinity in the local area.

The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be water erosion (Department of Agriculture 2005).

The area under application is within a road reserve and is adjacent to an existing road, which already includes roadside infrastructure, such as table drains and culverts, to prevent land degradation in the form of water erosion associated with roads. Therefore, it is not considered likely for the proposed clearing to cause appreciable land degradation.

Methodology References

- Department of Agriculture (2005)
- DEC (2009)
- Northcote et al. (1960-68)
- GIS Databases
- Salinity, Risk
- Soils, Statewide

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

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

There is one conservation area occurring within the local area (~10km radius) of the area under application, that being the Boyagin Nature Reserve occurring 9.8 km south.

Given the distances to this reserve it is not considered likely for the proposed clearing to impact on the environmental values of this conservation area.

Methodology GIS Database

- DEC Managed Lands and Waters

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

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

The closest wetland to the area under application occurs 2.1 km south and the closest watercourse, a minor non-perennial stream, occurs within the southwest portion of the area under application. In addition, tributary of the Avon River occurs 2.6 km northeast of the area under application.

Groundwater salinity in the areas under application is considered high with 7000 to 35 000 mg/l. However, given the relatively small size of the area to be cleared, the proposed clearing is not likely to significantly alter groundwater levels and have a significant affect on the groundwater salinity in the local area.

In addition, given the distance from the nearest wetland and watercourse and that the area under application is adjacent to an existing road, which already includes roadside infrastructure, such as table drains and culverts, to prevent water erosion and therefore sedimentation of nearby watercourses, it is not considered likely for the proposed clearing to be at variance to this Principle.

Methodology GIS Databases:

- Groundwater Salinity, Statewide
- Hydrography, linear
- Hydrography, linear (hierarchy)

(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 closest wetland to the area under application occurs 2.1 km south and the closest watercourse, a minor non-perennial stream, occurs within the southwest portion of the area under application. In addition, tributary of the Avon River occurs 2.6 km northeast of the area under application.

Given the extent of clearing in the local area for agriculture, and the small area of vegetation under application, it is not considered likely that the proposed clearing to cause or exacerbate, the incidence or intensity of flooding.

Methodology GIS Databases:
- Hydrography, linear
- Hydrography, linear (hierarchy)
- Wheatbelt_Wetlands

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

Comments

The proposal is to clear 1 ha within Corberding road reserve and the adjoining properties, Lot 105 and 2899 Corberding Rd, in the Shire of Brookton for the purpose of road realignment for heavy haulage traffic.

The areas under application are zoned 'road' (Corberding road reserve) and 'farming' (Lots 105 and 2899) under the Shire of Brookton's town planning scheme.

Western Australian Planning Commission (WAPC) approval is required for the rezoning of farm land to road reserve. The Shire has submitted an application but has not yet obtained approval from the WAPC.

The areas under application are within the EPA Position Statement No. 2 'Agricultural area' (EPA 2000). Significant clearing of native vegetation has already occurred within this area and 'from an environmental perspective the EPA is of a view that it is unreasonable to expect to be able to continue to clear native vegetation from land within the agricultural area' (EPA, 2000).

Roadside Conservation Committee (2009) provided comment on the proposed clearing and stated that from aerial photography the vegetation looks to be in a degraded condition and is not important in landscape connectivity.

Methodology References
-EPA (2000)
-Roadside Conservation Committee (2009)
Gis Databases
- Town Planning Scheme Zones

4. Assessor's comments

Comment

The assessable criteria have been addressed and the clearing as proposed is at variance to Principles (e).

5. References

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

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

DEC (2009) Site Inspection Report for Clearing Permit Application CPS 3101/1 Corberding rd reserve and Lot 105 and 2899 Corberding Rd, Brookton. Site inspection undertaken 21/05/2009. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC85439).

Department of Agriculture (2005) AgMaps Land Manager CD-rom for the Shires of Serpentine-Jarrahdale, Kwinana, Rockingham, Mandurah, Murray, Boddington, Waroona and Harvey. Department of Agriculture, Western Australia. ISSN: 1448-235X.

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.

Roadside Conservation Committee (2009) Direct Interest Submission, DEC, TRIM Ref DOC85387

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.

Western Australian Herbarium (1998?). FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 28/05/09).

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)