



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3513/1
Permit Holder:	Carbon Conscious Limited
Duration of Permit:	28 February 2010 – 28 February 2015

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 Mallee Plantation.
- 2. Land on which clearing is to be done**
LOT 10044 ON DEPOSITED PLAN 206116
- 3. Area of Clearing**
The Permit Holder must not clear more than 180 trees of native vegetation within the area hatched yellow on attached Plan 3513/1.
- 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.

PART III - RECORD KEEPING AND REPORTING

7. 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) the species composition, structure and density of the cleared area;
- (b) 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;
- (c) the date that the area was cleared; and
- (d) the size of the area cleared (in hectares).

8. 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 7 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 28 November 2014, the Permit Holder must provide to the CEO a written report of records required under condition 7 of this Permit where these records have not already been provided under condition 8(a) of this Permit.

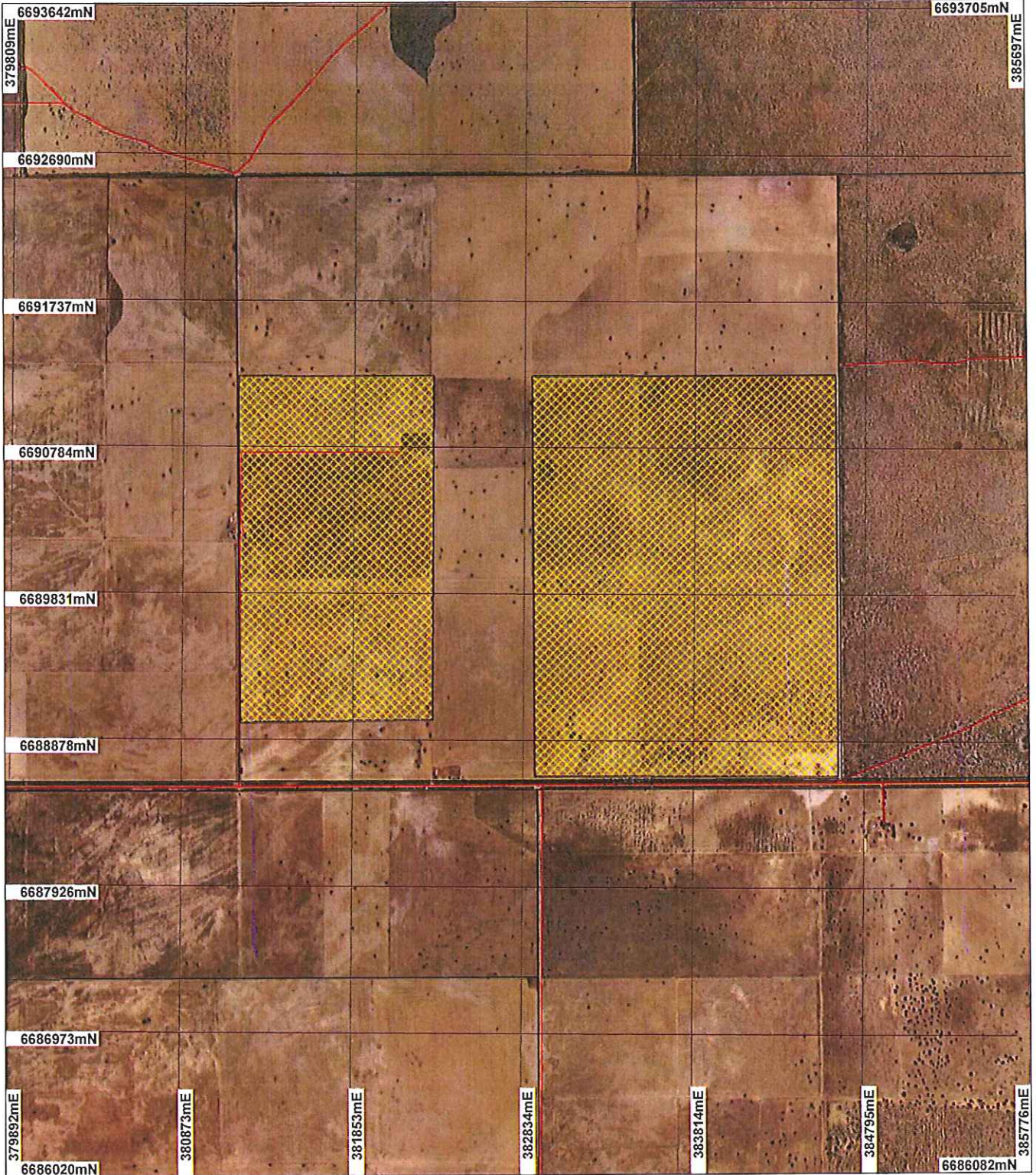


Keith Claymore
A/ ASSISTANT DIRECTOR
NATURE CONSERVATION DIVISION

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

28 January 2010

Plan 3513/1



LEGEND

- Clearing Instruments
- Road Centrelines
- Cadastral



0 ————— 1 km

Scale 1:33993

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

K Claymore Date *28/1/10*
 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

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1. Application details

1.1. Permit application details

Permit application No.: 3513/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Carbon Conscious Limited

1.3. Property details

Property: LOT 10044 ON PLAN 206116 (House No. 1888 LAUNER EGANU 6515)
Local Government Area:
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
	180	Mechanical Removal	Plantation

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 Units: 697: Shrublands; scrub-heath on lateritic sandplain in the southern Geraldton Sandplain Region	The proposal is to clear 180 paddock trees from a 550ha area of Lot 10044 for the purpose of establishing a mallee plantation.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation condition was determined through aerial imagery (Carnamah 2006) and a site inspection (DEC, 2010).
379: Shrublands; scrub-heath on lateritic sandplain in the central Geraldton Sandplain Region	Given that the proposal is for the clearing of individual paddock trees the vegetation condition is 'degraded' (Keighery, 1994; DEC, 2010).		

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 proposal is to clear 180 native trees from a 550 hectare area (Lot 10044) for the purpose of establishing a mallee plantation.

Photographs of some of the vegetation under application and advice from the applicant identifies the trees to be cleared as *Eucalyptus todtiana* (Carbon Conscious, 2010) It is highly unlikely that the area will contain conservation significant flora given the past land use and while the isolated trees may have some limited habitat value, this species is not conducive to the creation of large nesting hollows (DEC, 2010).

The local area (10km radius) retains approximately 25% native vegetation cover however the vegetation under application is not a significant part of any ecological linkage through the local landscape.

Given the clearing of native vegetation is limited to individual trees within a paddock it is not likely that the vegetation represents a high level of biological diversity in a local context.

Methodology

References:
Carbon Conscious (2010)
DEC (2010)

GIS Database:
SAC Bio datasets accessed 14 January 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 is not likely to be at variance to this Principle**
The local area (10km radius) retains approximately 25% native vegetation cover of which approximately 10% is held in secure DEC tenure.

Photographs and advice on some of the paddock trees under application (Carbon Conscious, 2010) identified the trees under application as *Eucalyptus tottiana*. While these paddock trees may be providing limited habitat value are not conducive to the creation of large nesting hollows (DEC, 2010).

The trees under application do not form a significant part of any ecological linkage throughout the local landscape.

Given the above the clearing of 180 paddock trees is not likely to be at variance to this principle as the vegetation is not likely to be significant habitat for native fauna.

Methodology **References:**
Carbon Conscious (2010)
DEC (2010)

GIS Database:
SAC Bio datasets accessed 14 January 2010
NLWRA, Current Extent of Native Vegetation 20 Jan 2001
Pre European Vegetation - DA 01/01

(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 3 known records of rare flora occurring within 10km of the applied area namely *Acacia aprica*, *Hemiandra rutilans* and *Hemiandra gardneri*.

Of these the soils of the applied area are not likely to be suitable habitat for *A. aprica* (WA Herbarium, 2010).

The proposal is to clear 180 individual paddock trees, given that *H. rutilans* and *H. gardneri* are both prostrate (to ascending) shrubs (WA Herbarium, 2010) it is unlikely that this proposal will impact on these rare flora species if present on site.

Also, considering previous land use it is highly unlikely that the area will contain conservation significant flora (DEC, 2010).

Given the above the clearing as proposed is not likely to be at variance to this principle.

Methodology **References:**
DEC (2010)
WA Herbarium (2010)

GIS Database:
Pre European Vegetation - DA 01/01
SAC Bio datasets - accessed 14 January 2010
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**
There are no known records of threatened ecological communities (TECs) within the local area (10km radius).

The proposal if for the clearing of 180 paddock trees, the vegetation is not representative of any known TEC (DEC, 2010).

Given the above the clearing as proposed is not likely to be at variance to this principle.

Methodology **References:**

DEC (2010)

GIS Database:

SAC Bio datasets accessed 14 January 2010

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

Comments

Proposal is not likely to be at variance to this Principle

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In reserves DEC Managed Land
IBRA Bioregions*				
Geraldton Sandplains^	3,136,033	1,341,273	42.77	41.7
Shire*				
Coorow	418,940	153,899	36.74	46.69
Beard Vegetation Association*				
379	547,737	122,023	22.28	22.08
697	187,289	57,827	30.88	23.97
Beard Vegetation Association with Bioregion*				
379	546,508	121,817	22.29	22.12
697	66,502	32,972	49.58	40.35

* (Shepherd, 2007)

^ Area within Intensive Land Use Zone

The local area retains approximately 25% native vegetation cover with approximately 10% in secure DEC tenure.

The vegetation under application includes 180 paddock trees which do not represent the structure or diversity of species of either vegetation unit 379 or 697.

The paddock trees proposed to be cleared were identified as *Eucalyptus tottiana* (Carbon Conscious, 2010; DEC, 2010) and are not conducive to the creation of large nesting hollows suitable as significant fauna habitat (DEC, 2010). In addition while the paddock trees may have some limited habitat values they do not form part of any ecological linkage throughout the landscape.

Given the above the clearing as proposed is not likely to be at variance to this principle as the vegetation proposed to be cleared is not significant in this extensively cleared landscape.

Methodology

References:

Carbon Conscious (2010)

DEC (2010)

Shepherd (2007)

GIS Database:

NLWRA, Current Extent of Native Vegetation 20 Jan 2001

Pre European Vegetation - DA 01/01

SAC Biodatasets accessed 14 January 2010

Soils, Statewide DA 11/99

(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 surface water expression area is located approximately 160m west of the applied area (earth dam). A non-perennial lake and non-perennial swamp are also in the vicinity of the applied area (650m east and 1.7km east respectively).

Given the applied area does not include a mapped surface water expression areas, and as the trees under application are identified as *Eucalyptus tottiana* (Carbon Conscious, 2010; DEC, 2010), the clearing as proposed is not likely to be at variance to this principle.

Methodology

References:

Carbon Conscious (2010)

DEC (2010)

GIS Database:
ANCA wetlands - Environment Australia 26/3/99
EPP Lakes Policy Area - DEP 14/05/97
Hydrography linear - DOW 13/7/06
Ramsar wetlands - DEC 03

(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 proposal is to clear 180 paddock trees from a 550 hectare area on chiefly yellow earthy sands, siliceous sands with some areas of ironstone gravelly soils (Northcote et al., 1968).

There is some potential for an increase in wind erosion of the sandy soils and an increase in localised salinity as a result of the removal of these trees, however degradation is likely to be minimal in the short term as the trees are spread over a large area and a plantation is to be established prior to soils structure decline.

Given the above the clearing as proposed is not likely to be at variance to this principle as any land degradation resulting from clearing is not likely to be appreciable.

Methodology References:
Northcote et al. (1968)

GIS Database:
Hydrogeology, statewide DOW 13/07/06
Hydrographic catchments, catchments - DoW 01/06/07
Salinity Risk LM 25m - DOLA 00
Soils, Statewide DA 11/99
Topographic contours statewide - DOLA and ARMY 12/09/02

(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

The closest area of conservation significance is the Brand Mudge Rd DAFWA heritage Site located approximately 2.6km west of the applied area.

Also located within the local area (10km radius) is the Capamauro Nature Reserve (5.2km east) and an unnamed Conservation Commission Nature Reserve (5.6km north).

The vegetation under application is not a significant part of any ecological linkage through the local landscape.

Given the distance between the applied area and nearby conservation areas the clearing is not likely to have any direct or indirect impacts of nearby conservation areas.

Methodology GIS Database:
DEC Managed Lands and Waters June 2009
SAC Bio datasets accessed 14 January 2010

(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 surface water expression area is located approximately 160m west of the applied area (earth dam) and Lot 10044 is mapped as having a groundwater salinity level between 1000 and 3000 mg/L over a moderate relief.

The soils of the applied area are chiefly yellow earthy sands and siliceous sands with some areas of ironstone gravelly soils (Northcote et al., 1968). These soils may be susceptible to some wind erosion as a result of the removal of 180 trees.

Given that there are no surface water expression areas within or in close proximity to the applied area and considering that the clearing is not likely to result in any appreciable land degradation it is unlikely that the clearing will cause deterioration in the quality of surface or underground water in the area of Lot 10044.

Methodology References:
Northcote et al. (1968)

GIS Database:

Average Annual Rainfall Isohyets - WRC 29/09/98
Hydrogeology, statewide DOW 13/07/06
Hydrographic catchments, catchments - DoW 01/06/07
Hydrography, linear - DOW 13/7/06
Salinity Risk LM 25m - DOLA 00
Soils, Statewide DA 11/99
Topographic contours statewide - DOLA and ARMY 12/09/02

(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 proposal is for the removal of 180 paddock trees over a 550 hectare area.

Given the limited removal of trees over an extensive area it is unlikely that the clearing as proposed will cause or exacerbate the incidence or intensity of flooding in the local area (10km radius).

Methodology GIS Database:

Hydrographic catchments, catchments - DoW 01/06/07
Hydrography, linear - DoW 13/7/06
Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

As the plantation size exceeds 100 hectares, planning approval from the Shire of Coorow is required. A copy of planning approval has been provided by the Shire of Coorow (Shire of Coorow, 2010).

The applicant has provided supplementary advice on the proposed land use advising that the mallee plantation is intended to remain for the life of the trees (ie 100 years plus) and that mallee's will not be harvested for any reason. In addition the applicant notes that no irrigation is required as mallee's area dryland crop (Carbon Conscious, 2010).

Several papers have been published (Smith, 2010) with the results indicating that mallee plantations increase the fauna habitat values of areas previously used for farming. Mr Smith also commented that the removal of blocks of native vegetation in the Shire of Coorow was not preferable and should be avoided. As the applied area includes scattered paddock trees on farmland it is likely that this proposal will result in 'net environmental gain' (EPA, 2008)

Methodology

References:
Carbon Conscious (2010)
Shire of Coorow (2010)
EPA (2009)
Smith (2010)

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 not likely to be at variance to the any of the clearing Principles.

5. References

- Carbon Conscious (2010) Additional information supplied by Carbon Conscious Pty Ltd in relation to clearing permit application CPS 3513/1, Site photos included, 20 January 2010 TRIM Ref DOC116210.
- DEC (2010) Moora District Advice. Department of Environment and Conservation Trim Ref DOC116268.
- EPA (2008) Environmental Protection Authority, Guidance Statement 19, Environmental Offsets.
- 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.
- Shire of Coorow (2010) Submission on clearing application CPS 3513/1 including planning approval for proposed plantation TRIM Red DOC116209.
- Smith, P (2010) Various papers relating to Mallee Plantations as a source of fauna habitat, e-mailed to Department of

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)
DMP	Department of Mines and Petroleum (ex DoIR)
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)