GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 6626/1
Permit Holder:	Shire of Brookton
Duration of Permit:	12 December 2015 – 12 December 2020

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 widening.

2. **Land on which clearing is to be done**
   Dale Kokeby Road reserve (PIN 11343125), Brookton
   Corberding Road reserve (PIN 11343083), Brookton

3. **Area of Clearing**
   The Permit Holder must not clear more than 34 native trees within the area shaded yellow on attached Plan 6626/1.

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.

PART II – MANAGEMENT CONDITIONS

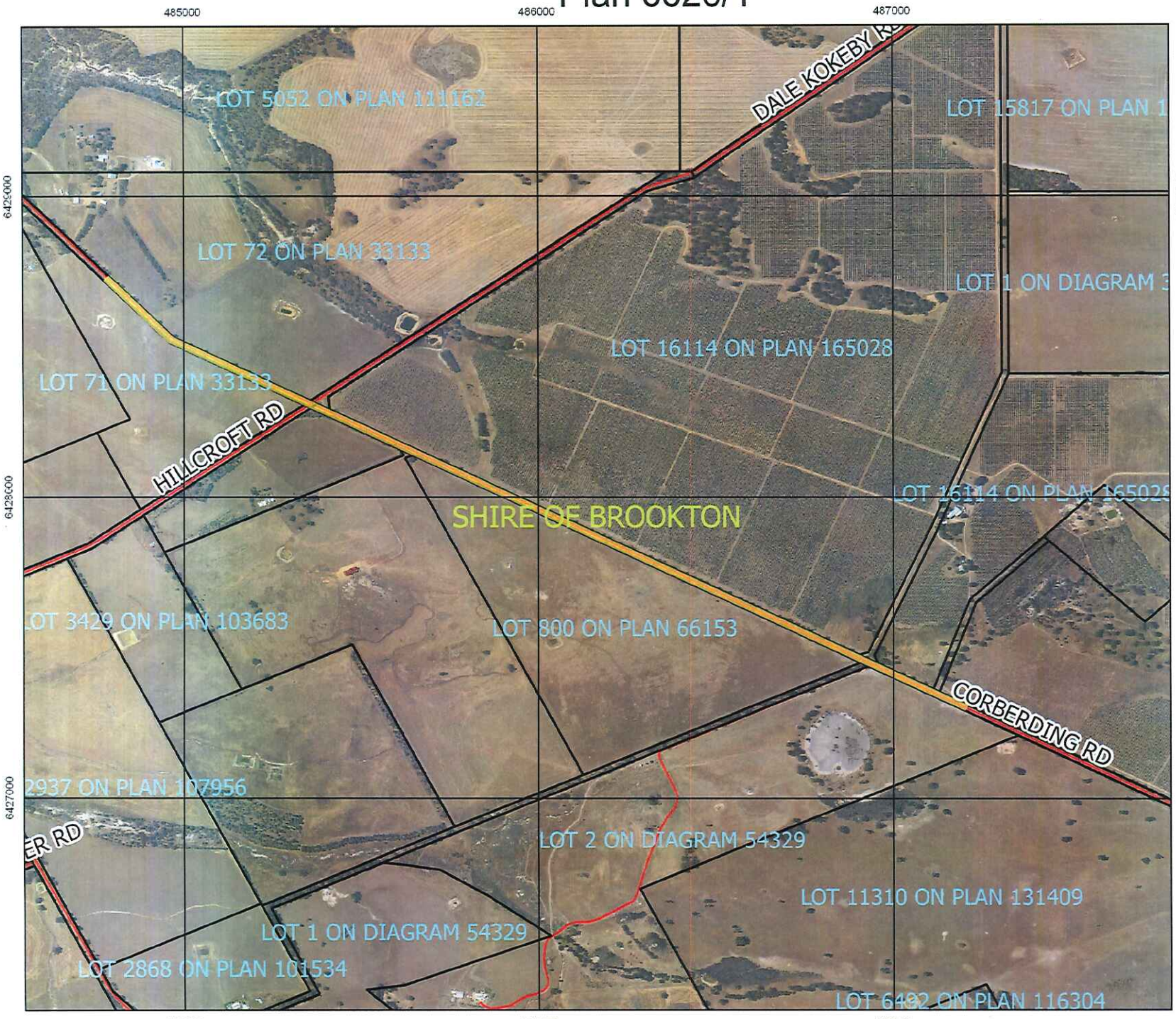
5. **Avoid, minimise etc clearing**
   In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:
   (a) avoid the clearing of native vegetation;
   (b) minimise the amount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

M Warnock
SENIOR MANAGER
CLEARING REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

12 November 2015

Plan 6626/1



Legend

- Areas approved to clear
- LGA
- Roads
- Virtual Mosaic
- cadastre_land_tenure_flattened

N

1:11.000

MGA 94
Geocentric Datum of Australia 1994

Date 12/11/15

M Warnock

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

GOVERNMENT OF WESTERN AUSTRALIA

Government of Western Australia
Department of Environment Regulation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6626/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Shire of Brookton

1.3. Property details

Property: ROAD RESERVE - 11343083, BROOKTON
ROAD RESERVE - 11343125, BROOKTON

Colloquial name:
Local Government Authority: BROOKTON, SHIRE OF
Localities: BROOKTON

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0	34	Mechanical Removal	Road construction or upgrades

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 12 November 2015

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
Mapped Beard vegetation associations (Shepherd et al. 2001): • 352 which is described as medium woodland; York gum; and • 946 which is described as medium woodland; wandoo.	The clearing of 34 native trees within Dale Kokeby Road reserve (PIN 11343125) and Corberding Road reserve (PIN 11343083), Brookton, for the purpose of road widening.	Completely Degraded; No longer intact, completely/almost completely without native species (Keighery, 1994).	The condition of the vegetation was determined by a site inspection undertaken by officers from the Department of Environment Regulation (DER 2015).

3. Assessment of application against clearing principles

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

Comments

Proposed clearing is not likely to be at variance to this Principle

Application CPS 6626/1 is to clear 34 native trees within Dale Kokeby Road reserve (PIN 11343125) and Corberding Road reserve (PIN 11343083), Brookton, for the purpose of road widening. The application area consists of 34 trees in a completely degraded (Keighery 1994) condition (DER 2015) distributed over a length of approximately 3.2 kilometres. The road reserves are adjacent to broadacre agriculture and olive tree plantations.

Three priority 4 (Acacia alata var. platyptera, Eucalyptus exilis and Hibbertia montana) and two rare flora species are mapped within the local area (10 kilometre radius) within the same vegetation association and soil type as the application area. All of the Priority 4 species are species that are considered to have been adequately surveyed and not in need of special protection but could be if circumstances change (Department of Parks and Wildlife [Parks and Wildlife] 2014). The closest of these is approximately seven kilometres from the application area. The closest of the two rare flora species is mapped approximately five kilometres from the application area.

Given the condition of the vegetation, the proposed clearing is not likely to impact on the conservation status of priority or rare flora species.

Four priority ecological communities are mapped within the local area (10 kilometre radius). Three of these are described as 'Pools of the Avon and Dale Rivers'; the fourth is described as 'Perched wetlands of the Wheatbelt region with extensive stands of Casuarina obesa and Melaleuca strobiphya'. The closest is

approximately six kilometres north of the application area. These communities are not represented within the application area and the proposed clearing is unlikely to impact on their environmental values given the distances between them and the application area. No threatened ecological communities are mapped within the local area.

Given the above, the application area is not likely to comprise a high level of biological diversity.

Methodology

References:
DER (2015)
Parks and Wildlife (2014)
Parks and Wildlife (2015)

GIS Databases:
- Wheatbelt Remnant Vegetation
- SAC Biodatasets - accessed November 2015

(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

Proposed clearing is not likely to be at variance to this Principle

A number of fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius) including: Forest red-tailed black cockatoo (Calyptorhynchus banksii subsp. naso), Bilby (Macrotis lagotis) and Southern Brush-tailed Phascogale (Phascogale tapoatafa subsp. tapoatafa) (Parks and Wildlife 2007-). The application area also falls within the modelled distribution area of Carnaby's black cockatoo (Calyptorhynchus latirostris) and Baudin's black cockatoo (Calyptorhynchus baudinii) (Department of Sustainability, Environment, Water, Population and Communities [SEWPaC] (2012).

Considering the vegetation under application is completely degraded (Keighery 1994), it is not likely to represent significant habitat for ground-dwelling indigenous fauna. However, a site inspection of the application area identified eight trees containing hollows considered suitable as nesting sites for black cockatoo species (DER 2015).

The Environment Protection and Biodiversity Conservation Act (EPBC Act) 1999 referral guidelines (SEWPaC 2012) defines breeding habitat for black cockatoos as 'trees of species known to support breeding within the range of the species which either have a suitable nest hollow or are of suitable diameter at breast height (DBH) to develop a nest hollow. For most trees, suitable DBH is 500 millimetres. For wandoo, suitable DBH is 300 millimetres.

A Black Cockatoo Habitat Assessment (2015) of the clearing footprint recorded a total of 194 habitat trees of which 35 contained hollows with only three currently containing hollows large enough for Black cockatoo breeding (Harewood, 2015). There was no evidence that any of the three trees had been used for breeding with one of the hollows occupied by bees (Harewood, 2015).

In order to limit the impacts to Black cockatoos the applicant has reduced the proposed clearing from two hectares (all of the 194 habitat trees) to 34 trees which are located approximately 1 to 1.5 metres back from the road seal. Of the 34 trees proposed to cleared none contain hollows. The 34 trees are considered to be potential future breeding habitat however, as the applicant has reduced the amount of clearing leaving 160 potential breeding trees within the clearing footprint and will not clear trees containing hollows, the proposed clearing is unlikely to significantly impact on Black cockatoos.

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

Methodology

References:
DER (2015)
Harewood (2015)
Keighery (1994)
Parks and Wildlife (2007-)
SEWPaC (2012)

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments

Proposed clearing is not likely to be at variance to this Principle

Two rare flora species are mapped within the local area (10 kilometre radius), both are located within the same vegetation association and soil type as the application area, the closest one being approximately five kilometres east from the application area.

The application area is virtually devoid of native understorey species and several areas appeared to have been sprayed with a herbicide (DER 2015). Given this, the presence of any rare flora species is highly unlikely.

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

Methodology References:
DER (2015)
Parks and Wildlife (2015)

GIS Database:
- SAC Biodatasets - accessed November 2015

(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 **Proposed clearing is not likely to be at variance to this Principle**
No Threatened Ecological Communities are mapped within the local area (10 kilometre radius). Given this, no such communities are likely to be impacted by the proposed clearing.

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

Methodology GIS Database:
- SAC Biodatasets - accessed November 2015

(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 **Proposed clearing is not likely to be at variance to this Principle**
The area under application is located within the Avon Wheatbelt Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion retains approximately 19 per cent of its pre-European vegetation extent (Government of Western Australia 2014).

The Shire of Brookton retains approximately 21 per cent of its pre-European vegetation. The vegetation under application is mapped as Beard vegetation associations 352 and 946, which have approximately 17 and 19 per cent, respectively, of their pre-European vegetation extents remaining within the Avon Wheatbelt bioregion (Government of Western Australia 2014).

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

Aerial imagery indicates that the local area (10 kilometre radius) surrounding the area under application retains approximately 20 per cent vegetation cover.

The application is to clear 34 trees over a linear distance of approximately 3.2 kilometres in a completely degraded condition. Considering this it is unlikely the mapped vegetation associations are represented within the clearing footprint. The 34 trees within the clearing footprint are unlikely to be a significant remnant of vegetation as the proposed clearing does not support significant habitat for conservation significant flora or fauna.

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

	Pre-European (ha)	Current (ha)	Extent Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion*				
Avon Wheatbelt	9,517,110	1,778,407	19	10
Shire*				
Shire of Brookton	160,143	33,774	21	46
Beard Vegetation Associations in Bioregion*				
352	630,582	110,129	17	9
946	43,309	8,431	19	9

Methodology References:
Commonwealth of Australia (2001)
Government of Western Australia (2014)
Keighery (1994)

(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 **Proposed clearing is not likely to be at variance to this Principle**
The southeast end of the application footprint intersects a minor, non-perennial watercourse that leads to a

basin, approximately 190 metres southwest of the application area. The proposed clearing is for the removal of 34 trees and is unlikely to impact on vegetation growing in, or in association with the watercourse or wetland.

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

Methodology GIS Database:
- Wheatbelt Minor Hydrology

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

Comments **Proposed clearing is not likely to be at variance to this Principle**
Increased water erosion due to the proposed clearing is likely to be minimal given that the one watercourse intersected is minor and non-perennial, annual local rainfall is low (500 millimetres), the landscape is gently undulating and the vegetation proposed to be cleared is in a completely degraded (Keighery 1994) condition (DER, 2015).

Wind erosion is not likely to increase significantly given that the mapped soil type consists of laterite and ironstone gravels (Northcote et al. 1960–1968).

Groundwater is highly saline, mapped at 14000-35000 total dissolved solids (milligrams per litres). The removal of 34 trees over a linear distance of 3.4 kilometres is not likely to contribute to the rise of groundwater causing appreciable land degradation in the form of salinity.

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

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

GIS Databases:
- Groundwater Salinity, Statewide
- 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 **Proposed clearing is not likely to be at variance to this Principle**
There are no conservation areas within the local area (10 kilometre radius). Given this, no conservation area are likely to be impacted by the proposed clearing.

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

Methodology GIS Database:
- Parks and Wildlife Tenure

(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 **Proposed clearing is not likely to be at variance to this Principle**
Ground water salinity within the application area has been mapped as highly saline at 14000-35000 total dissolved solids (milligrams per litres). The proposed clearing is not expected to significantly change salinity levels given its small scale and the condition of the vegetation.

The proposed clearing footprint intersects with a minor, non-perennial watercourse however, the proposed clearing of 34 trees is unlikely to impact on the watercourse or cause deterioration in the watercourses water quality.

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

Methodology GIS Databases:
- Wheatbelt Minor Hydrology
- Groundwater Salinity, 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 **Proposed clearing is not likely to be at variance to this Principle**
The proposed clearing is not expected to significantly contribute to flooding given the gentle undulation of the application area and the surrounding area as well as the relatively small scale and linear nature of the application area.

Therefore the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Databases:
- Soils of WA
- Topographic Contours, Statewide

Planning instruments and other relevant matters.

Comments DER sent the applicant on 15 September 2015 a letter advising of two significant environmental impacts were identified during the assessment and that the proposed clearing was at variance to Principles (b) and (e). In a letter dated 20 October 2015 and an email on 6 November the applicant provided information to DER addressing the concerns. The applicant has reduced the proposed clearing from two hectares to 34 native trees, none of which are considered to be significant nesting habitat trees for Black cockatoos.

The application area is located within the Avon River Surface Water Area, proclaimed under the Rights in Water and Irrigation Act (1914), where there may be a requirement to obtain a permit to interfere with the bed and banks of a watercourse. The proponent is advised to liaise with the Department of Water to determine if approvals are required.

No registered Aboriginal Sites of Significance occur within the application area.

No public submissions have been received.

Methodology GIS Databases:
- Aboriginal Sites Register
- RIWI Surface Water Areas

4. References

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

DER (2015) Site visit report for clearing permit application CPS 6626/1, 25 August 2015. Department of Environment Regulation, Western Australia (DER Ref: A958648).

Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. WA Department of Parks and Wildlife, Perth.

Harewood, G. (2015) Black Cockatoo Habitat Assessment. Corberding/Dale Kokeby Roads – Shire of Brookton. October 2015 DER Ref:A993053).

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.

Parks and Wildlife (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: http://naturemap.dpaw.wa.gov.au/. Accessed August 2015.

Parks and Wildlife (2014) Threatened and Priority Flora List for Western Australia. Department of Parks and Wildlife, Western Australia.

Parks and Wildlife (2015) Advice received in relation to clearing permit application CPS 6626/1, received 3 July 2015. Department of Parks and Wildlife, Western Australia (DER Ref: A929998).

SEWPaC (2012) EPBC Act Referral guidelines for three threatened black cockatoo species: Carnaby's cockatoo (endangered) Calyptorhynchus latirostris, Baudin's cockatoo (vulnerable) Calyptorhynchus baudinii, Forest red-tailed black cockatoo (vulnerable) Calyptorhynchus banksii naso.

Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.