



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 6300/1
Permit Holder:	Coalfields Firewood Pty Ltd
Duration of Permit:	From 18 April 2015 to 18 April 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 timber harvesting.
- 2. Land on which clearing is to be done**
Lot 11112 on Deposited Plan 203813, Trigwell.
- 3. Area of Clearing**
The Permit Holder shall not clear more than 25 hectares of native vegetation within the area hatched yellow on attached Plan 6300/1.
- 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. Wetland management**
The Permit Holder shall not clear native vegetation within 30 metres of any *watercourse* identified within the area cross-hatched yellow on attached Plan 6300/1.
- 6. Vegetation management**
 - (a) A minimum retention rate of 25 m²/ha *basal area* is required within the area of clearing authorised under this Permit.
 - (b) The Permit Holder must utilise previously cleared areas as log landings.
- 7. Fauna management**
The Permit Holder shall not clear *black cockatoo habitat trees* found within the area cross-hatched yellow on attached Plan 6300/1.

PART III - RECORD KEEPING AND REPORTING

8. 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).

9. Reporting

- (a) The Permit Holder must provide to the CEO on or before 1 March of each year, a written report:
 - (i) of records required under condition 8 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 1 March of each year.
- (c) Prior to 18 January 2020, the Permit Holder must provide to the CEO a written report of records required under condition 8 of this Permit where these records have not already been provided under condition 9(a) of this Permit.

DEFINITIONS

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

basal area is the method of expression of tree cover density in an area where the total area of tree trunk, whose diameter is measured at 1.5 metres above the ground, is expressed as square metres per hectares of land area;

black cockatoo habitat tree(s): means trees that have a diameter, measured at 1.5 metres from the base of the tree, of 50 centimetres or greater, and

watercourse has the meaning given to it in section 3 of the *Rights in Water and Irrigation Act 1914*.

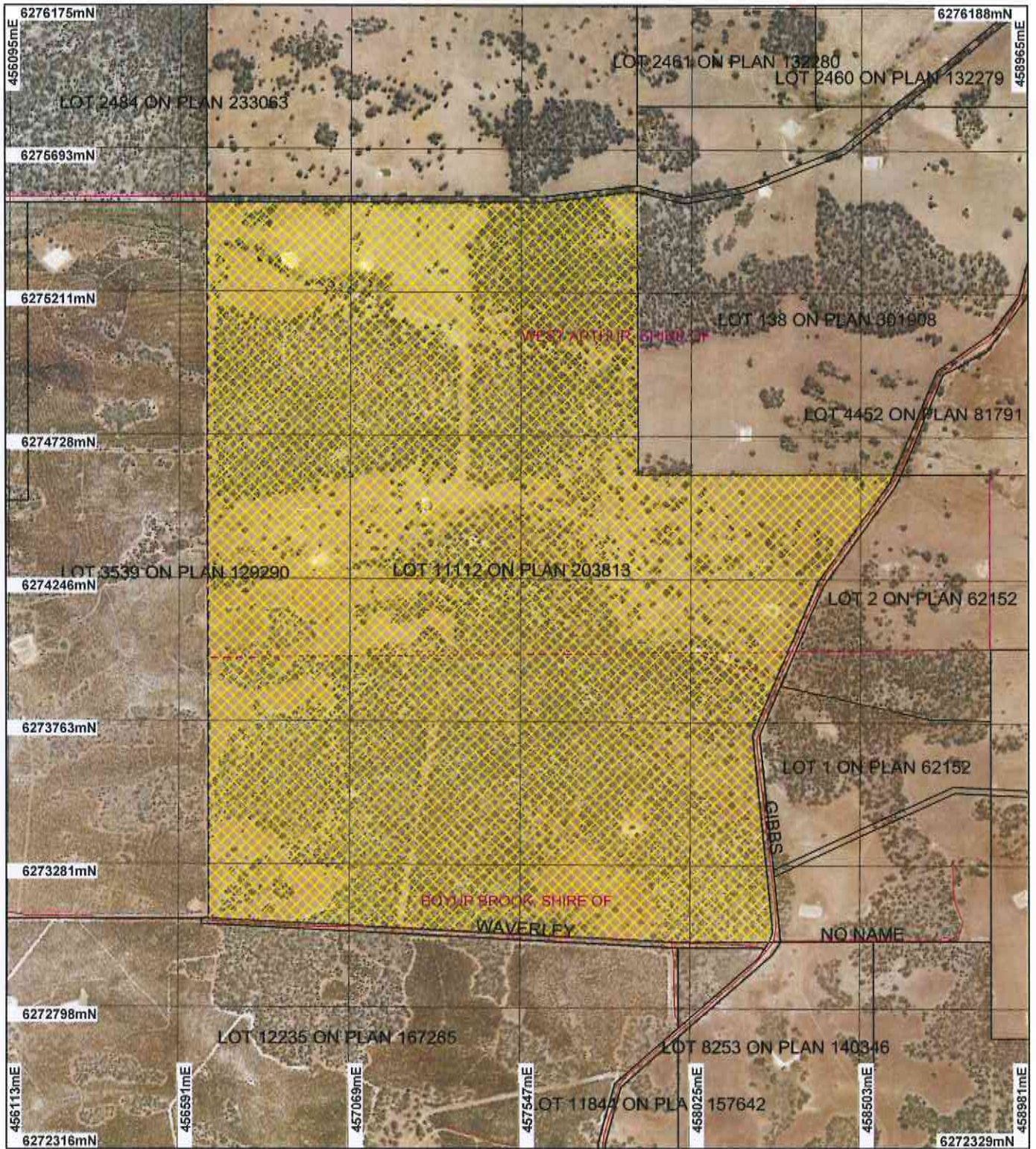


M Warnock
SENIOR MANAGER
CLEARING REGULATION

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

19 March 2015

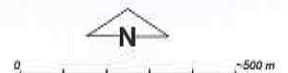
Plan 6300/1



LEGEND

- Road Centrelines
- Cadastre
- Local Government Authorities
- Clearing Instruments
- Areas Approved to Clear

Dinninup 50cm Orthomosaic - Landgate 2004



Scale 1:17000
(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.

M Warnock Date 19/3/15
M Warnock

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.



Government of Western Australia
Department of Environment Regulation

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1. Application details

1.1. Permit application details

Permit application No.: 6300/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Coalfields Firewood Pty Ltd

1.3. Property details

Property: LOT 11112 ON DEPOSITED PLAN 203813 (House No. 1705 GIBBS TRIGWELL 6244)
Local Government Area: Shire of West Arthur, Shire of Boyup Brook

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
25		Mechanical Removal	Timber Harvesting

1.5. Decision on Application

Decision on Permit Application: Grant
Decision Date: 19 March 2015

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

The application area has been mapped as Beard vegetation association's (Shepherd et al 2001):

3: Medium forest, jarrah-marri.

4: Medium woodland, marri and wandoo.

The application area has been mapped as Mattiske vegetation complex's (Mattiske and Havel 1998):

LK2: Woodland of Eucalyptus wandoo with some mixtures of Eucalyptus marginata subsp. thalassica and Corymbia calophylla on the valley slopes with occasional Eucalyptus rudis on valley floors in semiarid and arid zones.

SD: Woodland of Eucalyptus marginata subsp. marginata with some Corymbia calophylla and Eucalyptus wandoo over Hakea prostrata and Dryandra sessilis on steeper uplands in the semiarid zone.

Dk3: Open woodland of Allocasuarina huegeliana - Acacia acuminata with occasional Eucalyptus rudis and Eucalyptus wandoo on variable slopes near granite outcrops and woodland of Eucalyptus astringens - Eucalyptus wandoo on breakaways in the arid zone.

Clearing Description

To selectively clear native vegetation within an area of 25 hectares within Lot 11112 on Deposited Plan 203813, Trigwell, for timber harvesting.

Vegetation Condition

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)

To

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994).

Comment

The condition of the vegetation under application has been determined through a Department of Environment Regulation Site Inspection undertaken on 29 October 2014.

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 application is to selectively clear 25 hectares of native vegetation consisting of Jarrah, Wandoo and Marri within a footprint area of 250 hectares for the purpose of timber harvesting.

The vegetation under application is predominantly in a degraded (Keighery, 1994) condition consisting of an open Eucalyptus marginata forest and an open Eucalyptus wandoo forest. The majority of the application area contains no understorey as a result of heavy grazing for many years. Although a portion of the application area contained an understorey of Banksia sessilis, it was still classified as being in a degraded condition (DER, 2014). This understorey vegetation will not be removed under the proposed clearing.

Seven conservation significant flora species have been recorded within the local area (10 kilometre radius). As the proposed clearing is for selective removal of over storey species, given the habitat preferences of the priority flora and the predominantly degraded condition of the vegetation, the application is unlikely to impact on the conservation status of these species.

A site inspection of the application area (DER, 2014) recorded significant stands of Eucalyptus and Corymbia species within the application area. Given this, the application area may contain habitat for conservation significant arboreal and avian fauna recorded from the local area. As the applicant has committed to retaining all large habitat trees within the application area, this impact is not likely to be significant (Malatesta, 2015).

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

Methodology

References:

DER (2014)

Keighery (1994)

Malatesta (2015)

GIS Database:

- SAC Bio Datasets - accessed December 2014

(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

Numerous fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 including *Calyptorhynchus banksii* subsp. *naso* (forest red-tailed black-cockatoo), *Calyptorhynchus baudinii* (Baudin's cockatoo), *Calyptorhynchus latirostris* (Carnaby's cockatoo), *Dasyurus geoffroyi* (Chuditch), *Phascogale tapoatafa* subsp. *tapoatafa* (southern brush-tailed phascogale) and *Phascogale calura* (Red-tailed Phascogale) have been recorded within 20 kilometres of the application area (DPaW, 2007-).

The vegetation under application is predominantly in a degraded (Keighery, 1994) condition consisting of an open *Eucalyptus marginata* forest and an open *Eucalyptus wandoo* forest. The majority of the application area contains no understorey as a result of heavy grazing for many years. Although the application area contains little to no understorey species, an intact over storey of mature *Eucalyptus* and *Corymbia* species is present (DER, 2014).

Carnaby's cockatoo nests in large hollows of eucalyptus trees and forages on the seeds, nuts and flowers of a large variety of plants including Proteaceous species (*Banksia*, *Hakea*, *Grevillea*), *Eucalyptus* species, *Corymbia* species and a range of introduced species, especially seeds from cones of *Pinus* species (Shah, 2006; Valentine and Stock, 2008). A site inspection of the application area recorded signs of black cockatoo feeding within the application area (DER, 2014).

Carnaby's cockatoo was once abundant in Western Australia. Since the late 1940s the species has suffered a 30 percent contraction in range, a 50 percent decline in population, and between 1968 and 1990 disappeared from more than a third of its breeding range (Saunders 1990; Johnstone and Storr 1998; Saunders and Ingram 1998; Garnett et al. 2011). The application area is mapped within the breeding range of Carnaby's cockatoo and within unconfirmed feeding habitat. Areas mapped as unconfirmed feeding habitat are areas of remnant vegetation in the Jarrah Forest IBRA Bioregion that may provide important feeding resources for Carnaby's cockatoo.

The application is to selectively clear native vegetation that is suitable as saw logs. The applicant has committed to retaining a basal area of 25 metres squared per hectare, retaining all large habitat trees and stated that a maximum of 20 trees per hectare will be removed (Malatesta, 2015). Given this, the application is not likely to have a significant impact on the amount of black cockatoo feeding habitat within the local area and is not likely to remove any potential nesting sites.

Given the predominantly degraded (Keighery, 1994) condition of the vegetation and the selective nature of clearing, the application is not likely to impact on ground dwelling fauna and given its position within the landscape, is not likely to significantly impact on the movement of fauna across the landscape.

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

Methodology

References:

DEC (2012)

DER (2014)

DPaW (2007-)

Garnett et al. (2011)

Johnstone and Storr (1998)

Keighery (1994)

Malatesta (2015)

Saunders (1990)

Saunders and Ingram (1998)
Shah (2006)
Valentine and Stock (2008)

GIS Database:
- SWERL Linkages

(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

Three rare flora species have been recorded within the local area (10 kilometre radius). Given the predominantly degraded (Keighery, 1994) condition of the vegetation and past history of grazing on the property (DER, 2014), these species are not likely to be present within the application area.

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

Methodology References:
DER (2014)
Keighery (1994)

GIS Database:
-SAC Bio Datasets - accessed December 2014

(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 threatened ecological communities mapped within the local area (10 kilometre radius). Given this and the condition of the vegetation under application, the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Database:
-SAC Bio Datasets - accessed December 2014

(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

The area under application is located within the Jarrah Forest Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion retains approximately 54 percent of its pre-European vegetation extent remaining (Government of Western Australia, 2013).

The application occurs within the Shires of West Arthur and Boyup Brook which retain approximately 30 and 44 percent of their pre- European vegetation extent respectively (Government of Western Australia, 2013).

The vegetation under application is mapped within Beard Vegetation Associations 3 and 4 which retain 68 and 28 percent Pre European extent in the Jarrah Forest bioregion respectively (Government of Western Australia 2013).

The vegetation under application is mapped within Matiske Vegetation Complexes SD, LK2 and Dk3 which retain approximately 47, 25 and 9 percent Pre European extent respectively (Matiske and Havel, 1998). Association Dk3 is described as *Allocasuarina huegelliana* - *Acacia acuminata* with occasional *Eucalyptus rudis* and *Eucalyptus wandoo* (Matiske and Havel 1998). A site inspection of the application area did not record vegetation consistent with this vegetation association, therefore it is not likely to be impacted by the proposed clearing (DER, 2014).

Aerial imagery indicates that the local area (10 kilometre radius) surrounding the area under application retains approximately 30 percent native vegetation.

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

The application is to selectively clear native vegetation that is suitable as saw logs. The applicant has committed to retaining a basal area of 25 metres squared per hectare, retaining all large habitat trees and stated that a maximum of 20 trees per hectare will be removed (Malatesta, 2015). Given this, and the condition of the vegetation, the application area is not likely to contain rare flora, threatened fauna or a high level of biodiversity.

Although the mapped vegetation associations are below or approaching the recommended retention rate of 30 percent, given the selective nature of the clearing and as the application area is not likely to be a significant remnant, it is not likely to be at variance to this clearing principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DPaW Managed Lands (%)
*IBRA Bioregion				
Jarrah Forest	4,506,660	2,457,731	54	68
*Shire				
Shire of West Arthur	283,182	87,449	30	33
Shire of Boyup Brook	282,643	125,022	44	47
*Beard Vegetation Association within Bioregion				
3	2,390,591	1,629,894	68	80
4	1,022,712	292,975	28	22
**Mattiske Vegetation Complex				
SD	8,963	4,257	47	9
LK2	23,791	6,026	25	5
Dk3	7,288	682	9	0

Methodology

Reference:
 Commonwealth of Australia (2001)
 DER (2014)
 *Government of Western Australia (2013)
 Keighery (1994)
 **Mattiske and Havel (1998)
 Malatesta (2015)

GIS Databases:
 - IBRA Australia
 - Local Government Authority
 - Dinninup 50cm Orthomosaic - Landgate 2004
 - Pre-European vegetation
 - NLWRA, Current Extent of Native Vegetation

(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
 Three minor non-perennial watercourses originate from within the application area. The applicant has committed to retaining a vegetated buffer of 30 metres around watercourses within the application area (Malatesta, 2015).

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

Methodology

Reference:
 Malatesta (2015)

GIS Databases:
 - Hydrology, linear

(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
 Soils within the application area have been mapped as Tf6, described as undulating to hilly portions of dissected lateritic plateau at moderate elevation. Chief soils are hard acidic and neutral yellow mottled soils containing small to large amounts of ironstone gravels (Northcote et. al., 1960-68). The application area ranges from 250 to 315 meters above sea level and occupies a higher position within the landscape.

The application is for the purpose of timber harvesting. As the area will be selectively cleared and given the mapped soil type, sufficient vegetation is likely to remain to mitigate any potential wind and water erosion. As the applicant has committed to retaining a 30 metre buffer from all watercourses, it is not likely to cause appreciable land degradation through water erosion along watercourses.

A Land Degradation Assessment Report compiled for the Commissioner of Soil and Land Conservation (2015) has advised that the selective removal of trees is not expected to increase the risk of salinity on or off-site.

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

Methodology References:
Commissioner of Soil and Land Conservation (2015)
Northcote et. al. (1960-68)

GIS Database:
- 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**

The closest conservation reserve (Trigwell Nature Reserve), falls approximately three kilometres north east of the application area. As the application is for selective timber harvesting, it is unlikely that it will sever any ecological linkages or impact on this conservation area.

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

Methodology GIS Databases:
-DPaW 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 **Proposal is not likely to be at variance to this Principle**

Three minor non-perennial watercourses originate from within the application area. The applicant has committed to retaining a vegetated buffer of 30 metres around watercourses (Malatesta, 2015).

A Land Degradation Assessment Report compiled for the Commissioner of Soil and Land Conservation (2015) has advised that the selective removal of trees is not expected to increase the risk of salinity on or off-site.

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

Methodology References:
Commissioner of Soil and Land Conservation (2015)
Malatesta (2015)

GIS Databases:
- Hydrology, linear

(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**

As the application is for timber harvesting and no perennial watercourses are present within the application area, the proposed clearing is not likely to be at variance to this principle.

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments The Shires of Boyup Brook and West Arthur have been advised of the proposed clearing. To date no response has been received.

A Commercial Producer's licence under the Wildlife Conservation Act 1950 from Department of Parks and Wildlife (DPaW) is required for the purpose of selling harvested logs. This licence has been applied for and will be determined pending the outcome of the clearing permit application.

Two public submissions have been received in relation to this application raising concerns as to the impact of clearing within a highly cleared local area. The concerns raised related to the original application to clear 250 hectares of vegetation and have been addressed through the assessment against the clearing principles.

4. References

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
DEC (2012). Carnaby's cockatoo (*Calyptorhynchus latirostris*) Recovery Plan. Department of Environment and Conservation, Perth, Western Australia.
DER (2014) Site inspection report for Lot 11112 on deposited plan 203813. Undertaken 29 October 2014. DER ref: A846088.
DPaW (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed November 2014.

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- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment 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.
- Saunders, D.A. (1990). Problems of survival in an extensively cultivated landscape: the case of Carnaby's cockatoo *Calyptorhynchus funereus latirostris*. *Biological Conservation*. 54: 277-290.
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- 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.
- Valentine L. E. & Stock W. (2008) Food Resources of Carnaby's Black-Cockatoo (*Calyptorhynchus latirostris*) in the Gnangara Sustainability Strategy study area. Unpublished report to the Forests Products Commission. Available online: <http://ro.ecu.edu.au/ecuworks/6147>
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed December 2014).