



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4448/1

File Number: 2011/005728-1

Duration of Permit: 19 September 2011 to 19 September 2014

PERMIT HOLDER

Terrence Herbert Mondy and Ainslie Elizabeth Mondy

LAND ON WHICH CLEARING IS TO BE DONE

Lot 8 on Deposited Plan 25835, Mayanup

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 9 hectares of native vegetation within the area hatched yellow on attached Plan 4448/1.

CONDITIONS

1. Fauna management

- (a) The Permit Holder shall retain *habitat tree(s)* found within the area cross area hatched yellow on attached Plan 4448/1.

DEFINITIONS

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

habitat tree(s) means trees that have a diameter, at average adult human chest height, of greater than 50cm, healthy but with dead limbs and broken crowns that are likely to contain hollows and roosts suitable for native fauna, or where these are not present then healthy but with the potential to contain hollows and roosts;

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH





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

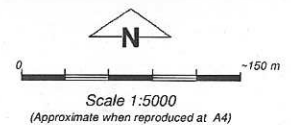
25 August 2011

Plan 4448/1




LEGEND

-  Road Centrelines
-  Local Government Authorities
- Clearing Instruments**
-  Areas Approved to Clear
-  Cadastre for labelling
- Bridgetown 50cm Orthomosaic - Landgate 2004**



Geocentric Datum Australia 1994

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

 Date 25/8/14

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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1. Application details

1.1. Permit application details

Permit application No.: 4448/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Terrence Herbert and Ainslie Elizabeth Mondy T.H. Mondy and Co

1.3. Property details

Property: LOT 8 ON PLAN 25835 (Lot No. 8 RITSONS MAYANUP 6244)
LOT 8 ON PLAN 25835 (Lot No. 8 RITSONS MAYANUP 6244)

Local Government Area: Shire of Boyup Brook

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
9		Mechanical Removal	Grazing & Pasture

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 25 August 2011

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 association 992 is described as ?Medium forest; jarrah & wandoo (Eucalyptus wandoo)? (Shepherd, 2009).	The application is to clear 9 hectares for the purpose of grazing and pasture.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition of the vegetation under application was determined via arial imagery (Bridgetown 50cm Orthomosaic - Landgate 2004).
Mattiske vegetation association LK2 is described as ?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.? (Matiske 1998).	The majority of the area under application is in a degraded (Keighery, 1994) condition and consists of predominatly Corymbua calophylla with some Eucalyptus marginata and scattered E. wandoo. There is no understorey .		
Mattiske vegetation association DM2 is described as ?Woodland of Eucalyptus wandoo- Eucalyptus marginata subsp. marginata- Corymbia calophylla on uplands in semiarid and arid zones.? (Matiske 1998).			

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 for the clearing of approximately 9 hectares for the purpose of pasture and grazing. The clearing is to occur on Lot 8 on Deposited Plan 25835. The vegetation appears to be in a 'degraded' (Keighery 1994) condition.

The vegetation was burnt in the late 1960's and mainly consists of regrowth with a few large trees. Trees consist predominantly of *Corymbia calophylla* (Marri), *Eucalyptus marginata* (Jarrah) and scattered *E. wandoo*. The understorey consists of mainly grassy weeds which are grazed regularly.

There were 6 records of conservation significant fauna within the local area (10km radius). Muir's Corella (*Cacatua pastinator* subsp. *Pastinator*), Carnaby's black cockatoo (*Calyptorhynchus latirostris*) (Endangered, Wildlife Conservation Act 1950; Endangered, Environment Protection and Biodiversity Conservation Act 1999) and Baudin's black cockatoo (*Calyptorhynchus baudinii*) (Endangered, Wildlife Conservation Act 1950; Vulnerable, Environment Protection and Biodiversity Conservation Act 1999) are likely to occur in the application area. The application area is within the range for Muir's corella as well as the black cockatoo species and any large or medium hollows may be very important habitat for these species.

Although the application area may comprise of significant habitat for fauna, due to the lack of species diversity and understorey layer, the vegetation proposed to be cleared is not considered to be of a high level of biological diversity and the proposed clearing is not representative of an area of outstanding biodiversity. Therefore the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
DEC (2007 -)
Keighery (1994)
GIS Database:
- Pre European Vegetation
- Bridgetown 50cm Orthomosaic - Landgate 2004
- SAC Biodatasets - accessed July 2011

(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

The application area is predominantly trees which consist predominantly of *Corymbia calophylla* (Marri), *Eucalyptus marginata* (Jarrah) and scattered *E. wandoo*. The understorey consists of mainly grassy weeds which are grazed regularly (DEC 2011).

There were 6 records of conservation significant fauna within the local area (10km radius). Muir's Corella (*Cacatua pastinator* subsp. *Pastinator*) (Endangered, Wildlife Conservation Act 1950; Vulnerable, Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)), Carnaby's black cockatoo (*Calyptorhynchus latirostris*) (Endangered, Wildlife Conservation Act 1950; Endangered, EPBC Act) and Baudin's black cockatoo (*Calyptorhynchus baudinii*) (Endangered, Wildlife Conservation Act 1950; Vulnerable, EPBC Act) are likely to occur in the application area. The application area is within the range for Muir's corella as well as the black cockatoo species and any large or medium hollows may be very important habitat for these species.

Muir's Corella is confined to the extreme south-west of Western Australia (Schodde & Mason 1997). Its distribution extends from McAlinden and Qualeup, south to the lower Perup River and Lake Muir, and east to Rocky Gully and Frankland. The habitat of Muir's Corella appears to be severely fragmented. Much of the original habitat has been lost due to clearing, processes associated with rural dieback (such as salinisation of soils) and degradation (SEWPC 2011). Muir's Corella is now confined to small remnants of its former habitat, including isolated trees in areas that have otherwise been cleared of native vegetation. It has been able to persist in small habitat remnants in agricultural regions because these regions provide permanent water and an abundant source of food (SEWPC 2011).

Carnaby's black cockatoo and Baudin's black cockatoo are listed as endangered under the EPBC Act, with populations declining dramatically due to land clearing for agriculture in regional areas and for urban development around Perth (Shah, 2006). This species nests in large hollows of *Eucalyptus* trees and forages on the seeds and nectar from the flowers of the proteaceae family including *Banksia*, *Hakea*, and *Grevillea* as well as species from *Allocasuarina* and *Eucalyptus* (Burbridge 2004).

Breeding for black cockatoos occurs in winter/spring, mainly in the eastern forests and wheatbelt where they can find mature hollow-bearing trees to nest in (DEC 2007). Clearing and subsequent land degradation has eliminated most of the breeding habitat for black cockatoos. These birds require old trees with large hollows in which to nest, which may take many decades for trees planted now to become suitable. Competition for nesting hollows by increasing numbers of galahs, western corellas and non native honey bees is significant (Burbridge 2004).

Tree hollows may occur within the area under application, and these hollows may provide habitat for local fauna including black cockatoos and Muir's Corella. Potential habitat trees have a diameter, at average adult human chest height, of greater than 50cm, healthy but with dead limbs and broken crowns that are likely to contain hollows and roosts suitable for native fauna, or where these are not present then healthy but with the potential to contain hollows and roosts. Therefore, the proposed clearing may be at variance to principle (b).

A fauna condition will manage and mitigate impacts from the proposed clearing on Carnaby's black cockatoo (*Calyptorhynchus latirostris*), Baudin's black cockatoo (*Calyptorhynchus baudinii*) and Muir's Corella (*Cacatua*

pastinator subsp. Pastinator).

Methodology Burbridge (2004)
DEC (2007)
DEC (2007-)
DEC (2011)
Keighery (1994)
Shah (2006)
SEWPC (2011)
GIS Databases:
- Bridgetown 50cm Orthomosaic - Landgate 2004
- Pre-European vegetation
- SAC Biodatasets - accessed July 2011

(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 search of DEC databases identified one species of Declared Rare Flora (DRF) recorded within the local area (10km radius) *Drakaea confluens*.

Given that the majority of the site is in a 'degraded' (Keighery, 1994) condition with the understorey consisting of mainly grassy weeds which are grazed regularly (DEC 2011), the applied clearing area is unlikely to support flora of conservation significance.

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

Methodology DEC (2011)
Keighery (1994)
GIS Databases:
- SAC Bio Dataset - accessed July 2011
- Pre European Vegetation

(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 records of known threatened ecological communities within the local area (10 kilometre radius) and as such the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Databases:
- SAC Biodatasets - July 11

(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 may be at variance to this Principle**
The area under application is located in the Shire of Boyup Brook in the Jarrah Forest Bioregion, which retain approximately 45% and 55.80% (Shepherd 2009), respectively of the pre-European extent. The area under application is also mapped as the Lukin (LK2) and Dalmore (DM2), which retains approximately 25.3% and 34.77% respectively of the pre-European extent (Shepherd 2007).

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).

There is less than 25% native vegetation remaining with in the local area.

Given the highly cleared landscape (approximately 20% remaining vegetation within the local area) the remaining vegetation in the local area is of increased importance as an ecological linkage and as the area under application may contain significant fauna habitat, it may be considered significant as a remnant.

Therefore the proposal may be at variance to this principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Jarrah Forest	4 506 656	2 514 549	55.80	67.20
Shire*				
Shire of Boyup Brook	282 644	127 179	45	46.76

Beard Vegetation Association in Bioregion* 992	386	305	78.87	28.8
Mattiske Vegetation Association in Bioregion** LK2 Complex	23 791	6 026	25.33	5
Mattiske Vegetation Association in Bioregion** DM2 Complex	41 468	14 420	34.77	5.79

*Shepherd 2009

**Shepherd 2007

Methodology Commonwealth of Australia (2001)
Shepherd (2009)
Shepherd (2007)
GIS databases:
- IBRA
- Mattiske Vegetation
- 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

There are no watercourses or wetlands within the area proposed for clearing, therefore the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Databases
-Hydrography linear,
-Topography, statewide

(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 property under applications mapped soil type Tf4 is described as 'Low hilly to hilly portions of dissected lateritic plateau with gently undulating ridge crests and narrow incised valleys: chief soils are hard acidic yellow mottled soils containing moderate to large amounts of ironstone gravel (Northcote et al 1960-68).

The Commissioner of Soil and Conservation (2011) advised that there is a low risk of land degradation occurring as a result of salinity, eutrophication, or soil erosion if the proposed clearing is carried out.

Therefore the proposed clearing is unlikely to be at variance with principle (g).

Methodology Commissioner of Soil and Conservation (2011)
Northcote et al. (1960-68);
GIS Databases:
- Hydrogeology, Statewide
- Groundwater Salinity, 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 may be at variance to this Principle

There is one conservation area in the local area (10 kilometre radius) of the application area, Six Mile Road Nature Reserve (R26508), located 2.5 kilometres west from the area under application.

Given the highly cleared landscape (approximately 20% remaining vegetation within the local area) the remaining vegetation in the local area is of increased importance as an ecological linkage between conservation reserves.

Given this the proposal may be at variance to this principle.

Methodology GIS Databases:
- DEC Tenure
- NLWRA, Current Extent of Native Vegetation

(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

Despite the soils containing gravel the application consists of vegetation in 'degraded' (Keighery 1994) condition with a medium gradient slope; is not likely that the proposed clearing will cause deterioration in the quality of surface or underground water resources in the local area and is therefore not likely to be at variance to this Principle.

Methodology References
Keighery (1994)
GIS Databases:
- Topographic Contours, Statewide
- Groundwater Salinity, Statewide
- Hydrogeology, 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 Proposal is not likely to be at variance to this Principle

The proposed clearing is not likely to cause, or exacerbate, the incidence or intensity of flooding (Commissioner of Soil and Land Conservation 2011) and is not likely to be at variance to this principle.

Methodology References:
Commissioner of Soil and Land Conservation 2011

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

Comments

The area under application falls within the agricultural area defined in EPA Position Statement No. 2 (EPA 2000). EPA Position Statement No. 2 (EPA 2000) states that significant clearing of native vegetation has already occurred on agricultural land, leading to a reduction in biodiversity and increase in land salinisation, and therefore any further reduction in native vegetation through clearing for agriculture cannot be supported. The EPA (2000) recommends that all existing native vegetation be protected from passive clearing through, for example, grazing by stock or clearing by other means.

In exceptional circumstances the EPA would consider supporting clearing for agriculture within this region if:

- (a) There are alternative mechanisms for protecting biodiversity.
 - (b) The area to be cleared is relatively small, depending on the scale at which biodiversity changes over the area, including extent of vegetation in the surrounding area and recognising that values will vary for different ecosystems.
 - (c) The proponent demonstrates that the elements set out in Section 4.3 of this Position Statement are being met. This will require extensive local and regional biodiversity work.
 - (d) Land degradation, including aquatic environments and threatening processes, such as dieback, salinisation or disruption of catchment processes, on-site and off-site would not be exacerbated.
- These have been addressed during the assessment of the clearing principles.

The Shire of Boyup Brook (2011) advised that the application does not require any approval under Council's Town Planning Scheme and the clearing or any possible burning of the timber is required to comply with the provisions of Council's Firebreak Order.

Methodology Town Planning Scheme is zoned as Rural
References
EPA 2000
GIS Databases
- EPA Position paper No 2 Agricultural Region
- Town Planning Schemes

4. References

- Burbidge, A. (2004) Threatened Animals of Western Australia, Department of Conservation and Land Management, Perth, Western Australia.
- Commissioner of Soil and Land Conservation (2011). Land Degradation Assessment Report for Application for a Clearing Permit - CPS 4448/1. Received 12 August 2011. Department of Agriculture and Food, Western Australia. DEC Ref: A421275
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2007) DEC Fauna Habitat Notes.xls. February 2007. Department of Environment and Conservation, Western Australia.
- DEC (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/> (Accessed 18/07/2011).
- DEC (2011) SW Regional Advice for Clearing Permit Application CPS 4448/1, TH Mondy & Co. Department of Environment and Conservation, Western Australia (DEC Ref. A421490).

- 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.
- 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.
- SEWPC (2011) *Cacatua pastinator pastinator* - Muir's Corella (southern), Western Long-billed Corella (southern). Species Profile and threats Database (http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=25981). Accessed August 2011
- Shah, B. (2006) Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.
- 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.
- Shepherd, D.P. (2009) 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.
- Shire of Boyup Brook (2011) Land Clearing Application Six Mile Road. Shire of Boyup Brook. DEC ref: A418471

5. 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)