



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 6082/1
File Number: 2010/005711-1
Duration of Permit: 4 October 2014 to 4 October 2016

PERMIT HOLDER

Dianne Kay Kuzich
Robin Milivoj Kuzich

LAND ON WHICH CLEARING IS TO BE DONE

Lot 4 on Diagram 63931, Ringbark
Lot 9523 on Deposited Plan 229088, Ringbark

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 9.7 hectares of native vegetation within the areas shaded yellow on attached Plan 6082/1.

CONDITIONS

Nil.

A handwritten signature in cursive script, appearing to read "M Warnock", written over a horizontal line.

M Warnock
SENIOR MANAGER
CLEARING REGULATION

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

4 September 2014

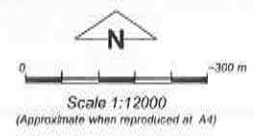
Plan CPS 6082/1



LEGEND

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

Manjimup 50cm Orthomosaic - Landgate 2007.



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 4/9/14
 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.



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



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6082/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Robin Milivoj and Dianne Kay Kuzich

1.3. Property details

Property: LOT 9523 ON PLAN 229088 (House No. 586 GRAPHITE RINGBARK 6258)
LOT 4 ON DIAGRAM 63931 (RINGBARK 6258)

Local Government Area: Shire of Manjimup
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
9.7		Mechanical Removal	Dam construction or maintenance

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 4 September 2014

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:	The clearing of 9.7 hectares of native vegetation is for the purposes of dam construction and an avocado orchard.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The vegetation condition was assessed through a site inspection conducted by Department of Environment Regulation (DER) officers (DER, 2014). The site inspection determined that the majority of the vegetation under application is in a degraded condition (Keighery, 1994). An area of good to very good (Keighery, 1994) condition vegetation was identified in the western application area (DER, 2014)
West Nornalup 1144: Tall forest; karri and marri (Corymbia calophylla)		To	
Central Nornalup 3: Medium forest; jarrah-marri		Very good: Vegetation structure altered; obvious signs of disturbance (Keighery, 2014)	
East Bridgetown 3: Medium forest; jarrah-marri (Shepherd et al, 2001).			
Mattiske Vegetation Complex:			
Yanmah complex YN1 - Mixture of tall open forest of Eucalyptus diversicolor and tall open forest of Corymbia calophylla-Eucalyptus patens-Eucalyptus marginata subsp. marginata over Agonis flexuosa and Agonis juniperina on valleys in perhumid and humid zones.			
Bevan 1 BE1: Tall open forest of Corymbia calophylla-Eucalyptus			

marginata subsp.
marginata on uplands in
perhumid and humid zones
(Mattiske and Havel,
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 proposed clearing of 9.7 hectares of native vegetation within Lot 4 on Diagram 63931 and Lot 9523 on Deposited Plan 229088, Ringbark, for the purposes of dam construction and an avocado orchard.

A site inspection of the application area undertaken by the Department of Environment Regulation described the overall condition of the vegetation proposed for clearing as being in a disturbed, degraded condition (DER, 2014; Keighery, 1994). The eastern portion of the proposed clearing is dominated by regrowth of Jarrah and Marri trees that are approximately 40 to 50 years old. The mid-storey and understorey is in a completely degraded to degraded (Keighery, 1994) condition, consisting predominantly of weeds and introduced grasses (DER, 2014). The western portion is intact, dense vegetation ranging from a good to very good condition (Keighery, 1994), dominated by *Eucalyptus rudis* and *Eucalyptus diversicolor* (DER, 2014).

Nine 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). Given the disturbed, degraded nature of the site and that the fauna habitats within the application area are well represented elsewhere within the local and regional area, it is unlikely that the vegetation under application provides significant habitat for fauna indigenous to Western Australia.

Three priority flora species and one rare flora species have been recorded within a 10 kilometre radius. It is unlikely that these species would occur within the application area given the high density of weeds on site, different soil type, as well as distance from the site.

There are no threatened or priority ecological communities mapped within the local area (10 kilometre radius).

The local area (10 kilometres) surrounding the application area is extensively vegetated with approximately 80 per cent of its pre-European vegetation remaining.

Given the majority of the vegetation proposed for clearing is in a disturbed, degraded condition and the application area is within an area well represented by National Parks, State Forest and Natures Reserves, the proposed clearing is not likely to hold a high level of biological diversity and is not likely to be at variance to this Principle.

Methodology

References:

- DER (2014)
- Keighery (1994)

GIS Databases:

- SAC Bio Datasets (Accessed June 2014)
- NLWRA, Vegetation Remaining
- Hydrography, linear
- Hydrography, hierachy

(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 several records of fauna listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 mapped within 10 kilometres of the proposed clearing, including Forest Red-tailed Black-Cockatoo (*Calyptorhynchus banksii* subsp. naso), Baudin's Cockatoo (*Calyptorhynchus baudinii*), Carnaby's Cockatoo (*Calyptorhynchus latirostris*), Chuditch (*Dasyurus geoffroii*), Southern Brush-tailed Phascogale (*Phascogale tapoatafa* subsp. tapoatafa) and Western Ringtail Possum (*Pseudocheirus Occidentalis*) (DER, 2007-).

The preferred foraging habitat for Forest red-tailed black cockatoo, Baudin's cockatoo and Carnaby's cockatoo includes jarrah and marri woodlands and forest heathland and woodland dominated by proteaceous plant species such as *Banksia* sp. *Hakea* sp. and *Grevillea* sp (Commonwealth of Australia, 2012). The vegetation under application contains foraging habitat suitable for these species. However, given the vegetation is well represented within the local and regional area, it is unlikely that the area under application would provide significant foraging habitat.

Potential habitat trees for the three black cockatoo species, 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. A site inspection determined that there are no habitat trees suitable for these species within the application area, given the majority of the jarrah and marri trees present are too narrow and young to contain hollows (DER, 2014).

The Chuditch has a preference for jarrah (*Eucalyptus marginata*) forests, woodlands, mallee shrublands and heaths. They require adequate den resources and large natural areas and home sizes that are not fragmented in order for survival (DEC, 2012a). Given the different vegetation association of the application area it is unlikely to provide significant habitat for this species.

The Southern Brush-tailed Phascogale's (*Phascogale tapoatafa* subsp. *Tapoatafa*) preferred habitat is dry sclerophyll forests and open woodlands that contain hollow-bearing trees (DEC, 2012b). Given that there are no suitable habitat trees present, it is unlikely to provide significant habitat for this species.

The Western Ringtail Possum (WRP) is usually associated with stands of myrtaceous trees growing near swamps, water courses or floodplains (Parks and Wildlife, 2014). The western portion of vegetation proposed for clearing may provide suitable habitat for Western Ringtail Possums given it consists of plant species suitable for this species. However, given the small size of suitable vegetation proposed for clearing within the application area, it is unlikely to provide significant habitat for this species.

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

Methodology

References:

- Commonwealth of Australia (2012)
- DER (2014)
- DEC (2012a)
- DEC (2012b)
- Parks and Wildlife (2014)

GIS Databases:

- NLWRA, Current Extent of Native Vegetation
- SAC Bio Datasets (Accessed June 2014)

(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

The closest record of rare flora is located seven kilometres north east of the application area. This species inhabits margins of lakes and granite outcrops with sandy loam soils (Western Australian Herbarium, 1998-). It is unlikely that rare flora will be present within the application area given the different soil type identified during a site inspection, the distance from the site and the degraded nature of the vegetation under application (DER, 2014)

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

Methodology

References:

- Western Australian Herbarium (1998-)

GIS Databases:

- SAC Bio Datasets (Accessed June 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).

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

Methodology

GIS Databases:

- SAC Biodatasets (Accessed June 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 vegetation under application has been identified as Beard vegetation complexes 1144, 3 (Warren) and 3 (Jarrah Forest) of which there is 80, 78 and 68 per cent of their pre-European extent remaining respectively within the Warren and Jarrah Forest Interim Biogeographic Regionalisation of Australia (IBRA) Bioregion (Government of Western Australia, 2013).

The application area is also mapped as Matisse Vegetation Complex's, Yanmah and Bevan 1 of which 81 and 84 per cent of their pre-European extent are remaining respectively.

The area under application is located within the Shire of Manjimup, within which there is approximately 84 per cent pre-European extent remaining (Government of Western Australia, 2013). Approximately 93 per cent of this vegetation falls within Department of Parks and Wildlife managed land.

The local area has approximately 40 per cent of native vegetation remaining, with the majority of this vegetation located within state forests.

Given the well represented vegetation types under application the area is not considered to be a significant remnant in an extensively cleared area.

Therefore, this proposal is not likely to be at variance to this principle.

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DPaW Managed Lands (%)
IBRA Bioregion*				
Warren	833,985.55	663,202.69	79	84
Jarrah Forest	4,506,660.26	2,457,731.55	54	68
Shire*				
Shire of Manjimup	697,368.24	586,905.06	84	93
Beard Vegetation Association in Bioregion*				
1144	159,668.36	128,224.04	80	92
3 - Warren	250,262.66	196,094.45	78	86
3 - Jarrah Forest	2,390,591.43	1,629,894.07	68	80
Matisse Vegetation Association*				
YN1	19,512.64	15,993.48	81	75
BE1	76,781.61	64,556.00	84	78

Methodology References:
 - Government of Western Australia, 2013

GIS Databases:
 - NLWRA, Current Extent of Native Vegetation
 - Pre-European 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 at variance to this Principle**
 The purpose of the proposed clearing is for the construction of a dam and is located on a minor perennial watercourse.

Given the above, the proposal is at variance to this Principle, however the proposed clearing is not likely to have a significant impact on the watercourse beyond the short term.

Methodology References:
 - Keighery (2014)

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 may be at variance to this Principle**
 The application area is mapped within soil type Tc6: Dissected lateritic plateau of hilly relief at moderate elevation. Chief soils of the dissected hilly areas are hard acidic yellow mottled soils with some hard acidic red mottled soils and brown earths all containing ironstone gravels(Northcote et al. 1960 - 1968).

The Department of Water (DoW, 2014) has advised the proposed clearing on Lot 9523 carries a risk of soil erosion and associated turbidity as the clearing is over a minor perennial watercourse and its riparian zone.

There is a slight slope from north to south that may cause surface water runoff resulting in sedimentation into the watercourse and proposed dam. However, this is likely to be short term and minimal. Best management practices should be employed during the construction phase of the dam in order to minimise erosion and sediment movement.

Ground water salinity levels in the local area have been mapped as marginal (Water and River Commission, 2000) at 500 - 1000 milligrams per litre total dissolved solids.

Given the above, the proposed clearing may be at variance to this principle.

Methodology **References:**
- Northcote et al. 1960 - 1968
- DoW (2014)

GIS Databases:
- 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 to the application area is the Faunadale C Class Nature Reserve which falls approximately one kilometre east of the application area. Given the distance to this reserve and the lack of connectivity between the reserve and the application area, it is not likely the proposed clearing will impact upon the environmental values of this reserve.

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

Methodology **GIS Databases:**
- 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 **Proposal may be at variance to this Principle**

The area under application falls within the Donnelly River Surface Water Area proclaimed under the Rights in Water and Irrigation Act (1914). In addition, this area is within a 'Priority not assigned' Public Drinking Water Source Area, whereby the protection of water quality against degradation is a priority (DoW, 2014).

The DoW (2014) has advised that the proposed clearing and land use may result in soil erosion and associated turbidity. The current land use practices on the property may result in the leaching of fertilisers and chemical spray drift into water bodies which may impact upon water quality. Land use management practices including the revegetation of native species along the proposed dam to create a protection buffer will reduce the risk of contaminants impacting upon water quality (DoW, 2014).

Given the above, the proposed clearing may be at variance to this principle.

Methodology **References:**
-DoW (2014)

GIS Databases:
- Hydrology, linear
- RIWI Surface Water Areas
- Public Drinking Water Source Area (PDWSA)

(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 clearing as proposed is not likely to increase the incidence or intensity of flooding.

Therefore, this proposal is not likely to be at variance to this principle.

Methodology **GIS Database:**
- Hydrogeology, Linear
- SAC Bio Datasets (Accessed June 2014)

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

Comments

The application is to clear 9.7 hectares of native vegetation for the purposes of dam construction and an avocado orchard. A clearing permit (CPS 3872/1) was previously granted for 3.3 hectares of the area under application however it expired on 9 May 2013.

The Department of Water has advised that a permit to 'interfere with bed and banks' and an amended 'licence to take' surface water will be issued (DoW, 2014a).

The Department of Water (2014) has advised that the applicant should adopt best management practices in order to protect water quality against degradation from current land use practices. The Department of Water (2014) recommends that the applicant follows the buffer retention objectives outlined in the Department of Water's 'Water Quality Protection Note 6 - Vegetation Buffers to Sensitive Water Resources', which provides guidance on retaining, maintaining and re-establishing vegetated buffers between land use practices and water resources (DoW, 2006). Vegetated buffers are key strategic elements among a series of protection barrier options that reduce the risk of contaminant impact on water quality (DoW, 2014). Revegetation of native species should be carried out around the proposed dam in order to reduce the risk of chemical spray drift and sediment input into the dam (DoW, 2014).

The Shire of Manjimup (2014) has advised that the land is zoned by Local Planning Scheme No.4 as 'Priority Agriculture' and planning approval is not required for clearing in this zone.

The Shire of Manjimup (2014) has noted that if the expanded edge of the proposed dam and/or dam wall is to be less than 20 metres from any lot boundary, Shire planning approval for the dam works will be required.

No aboriginal sites of significance have been mapped over the application area.

No submissions from the public have been received for the proposed clearing.

Methodology

References:

- DoW (2006)
- DoW (2014)
- Shire of Manjimup (2014)

GIS Databases:

- Aboriginal Sites of Significance

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Commonwealth of Australia (2012) EPBC Act referral guidelines for three threatened black cockatoo species, Canberra.
- DEC (2012a) Chuditch (*Dasyurus geoffroii*). Department of Environment and Conservation, Perth, Western Australia.
- DEC (2012b) Brush-tailed Phascogale *Phascogale tapoatafa* (Meyer, 1793). Department of Environment and Conservation, Perth, Western Australia.
- DER (2014) Site Inspection Report for CPS 6082/1. Department of Environment Regulation. Western Australia. (A768259).
- DoW (2006) Water Quality Protection Note - Vegetation buffers to sensitive water resources'. Western Australia. <http://www.water.wa.gov.au/PublicationStore/first/81872.pdf> (Accessed 18/06/14).
- DoW (2014) Advice for Clearing Permit CPS 6082/1. Department of Water. Western Australia. (DER Ref: A755303).
- DoW (2014a) Further advice for Clearing Permit CPS 6082/1. Department of Water. Western Australia. (DER Ref: A800181)
- Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
- 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.
- Parks and Wildlife (2014). Western Ringtail Possum (*Pseudocheirus occidentalis*) Recovery Plan. Department of Parks and Wildlife, Perth, Western Australia.
- 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 Manjimup (2014) Advice for Clearing Permit CPS 6082/1. Western Australia. (DER Ref: A757110).