



1. Application details

1.1. Permit application details

Permit application No.: 2896/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Geoffrey Iain North Director Ernest George Nominees

1.3. Property details

Property: LOT 10250 ON PLAN 203449 (Lot No. 10250 HUNTER NORTH WALPOLE 6398)
 LOT 10249 ON PLAN 203449 (Lot No. 10249 HUNTER NORTH WALPOLE 6398)
 LOT 10248 ON PLAN 203449 (Lot No. 10248 HUNTER NORTH WALPOLE 6398)
 LOT 10245 ON PLAN 203452 (Lot No. 10245 HUNTER NORTH WALPOLE 6398)

Local Government Area: Shire Of Manjimup

Colloquial name:

1.4. Application

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

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
Mattiske Vegetation complex :Keystone (Kb)- Mosaic of tall open forest of Eucalyptus guilfoylei- Eucalyptus jacksonii- Eucalyptus diversicolor on slopes of major hills rising above coastal plain with Allocasuarina decussata- Banksia grandis-Agonis flexuosa on slopes in hyperhumid and perhumid zones and tall open forest of Eucalyptus brevistylis- Eucalyptus marginata subsp. marginata- Corymbia calophylla and the occasional Eucalyptus megacarpa near rock outcrops in hyperhumid and perhumid zones.	The vegetation under application is composed of several sites varying size. All have been subjected to past clearing activities but have now returned to a very good (Keighery 1994) condition (DEC, 2008).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The description and condition of the vegetation under application was determined via the use of aerial imagery and DEC site visit 2009.
Beard vegetation association: 1139 - Tall forest; karri & yellow tingle (Eucalyptus guilfoyleii)			

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 may be at variance to this Principle

Despite the vegetation under application being subjected to past clearing activities, it has regenerated to be in a very good (Keighery 1994) condition (DEC, 2009). The local area (10km radius) is well vegetated with aerial imagery showing that approximately 75% remains, with large amounts of land protected in the form of DEC

managed lands.

There are several wetlands that occur throughout the application area. Wetlands are known to contain high biodiversity, and are considered to be among the most biologically productive and diverse habitats in the state (EPA, 2004). Areas of vegetation that are adjacent to wetlands are necessary in order to effectively protect the biodiversity of species that exist within wetland systems (EPA 2004). To ensure the integrity of these wetland systems are maintained it is recommended that 100 metre vegetated buffers will be imposed on the clearing permit (WRC 2001).

Methodology DEC (2009)
EPA (2004)
Keighery (1994)
WRC (2001)
GIS DataSets:
- CALM Managed Lands and Waters (1/11/03)
- Clearing Regulations - Environmentally Sensitive Areas (30/05/05)
- Deep River 50cm Orthomosaic (9/10/07)
- Geomorphic Wetland, Augusta to Walpole (13/07/06)
- Hydrography, linear (hierarchy) (13/07/06)

(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 vegetation of the applied area could represent a viable habitat for *Setonix brachyurus* (Quokka), *Isodon obesulus* (Quenda), Brush-tailed Phascogales (*Phascogale tapoatafa*), *Calyptorhynchus baudinii* (Baudin's black cockatoo) and *Galaxiella nigrostriata* (Black-stipe Minnow).

However while there are several fauna species that may utilise the proposed area to be cleared, there are larger areas of similar vegetation within the surrounding area that can be utilised. The proposed thinning operations are not likely to affect the quality of the habitat. The understorey has demonstrated the ability to regenerate quickly and the removal of suppressed and subdominant overstorey species is likely to encourage the growth of dominant trees which may develop into future habitat trees. The clearing is also to take place in small areas at differing times, snig tracks are scrub rolled and not cleared to assist quick regeneration of vegetation (DEC, 2009).

The proposed clearing is not likely to represent a significant habitat for indigenous fauna as the local area (10km radius) is not a heavily cleared area (Shepherd et al. 2007). Therefore the proposed clearing is not likely to be at variance to this Principle. To ensure fauna species are not negatively impacted by the proposed clearing, vegetation management conditions, watercourse and wetland buffers (30 and 100 metres respectively) and the retention of habitat trees will be imposed on a permit.

Methodology DEC (2009)
Shepherd et al (2007)
GIS DataSets:
- SAC Biodatasets - accessed 15 Jan 09

GIS Database:
- SAC Biodataasets (Fauna Feb 08)
- Imagery Deep River 50cm - Orthomosaic Landgate04
- CALM Managed Lands and Waters

(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 were 33 priority listed flora species recorded within the local area (10km radius). These included 1 priority one species, 6 priority two species, 20 priority three species and 6 priority four species.

The rare flora species *Meziella trifida* and *Sphenotoma drummondii* were recorded occurring 6.4km north west and 6.6km east of the application area respectively. However neither species is likely to occur within the application area. *Meziella trifida* occurs on open grey sandy clay in association with teatree and twine rushes and *Sphenotoma* occurs on similar soils to that of the application area, but is mostly known to occur in pockets of soil on sheer cliff faces or under cliff overhangs (Brown et al. 1998).

It is considered unlikely that the proposed clearing is at variance to this principle. To prevent the introduction and spread of weeds and pathogens, weed and dieback control conditions will be imposed on the permit.

Methodology Brown et al (1998)

GIS DataSets:
- SacBioDataSets (accessed 15 Jan 09)

(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 Threatened Ecological Community (TEC) within a 10km radius of the applied area.

There are three records of Priority Ecological Community (PEC) between 10km and 13km of the application area. All three PEC's are related to the presence of Reedia swamps however none occur within a similar vegetation type to that of the applied area.

The clearing as proposed is not at variance with this principle as there are no TEC's in the local area (10km radius).

Methodology GIS Database:
- SAC Biodatasets (Threatened Ecological Communities)
- SAC Biodatasets (Priority Ecological Communities)

(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 consists of two vegetation types. Beard vegetation association 1139 and Mattiske vegetation complex Kb. The beard association present within the application area is above the recommended 30% threshold for remaining native vegetation within the bioregion, and Shire (Shepherd et al. 2007). The component of Mattiske Vegetation Complex Keystone (Kb) of which 81.8% of Pre-European extent is remaining is also well above recommended retention levels (Mattiske, 1998).

The local area (10km radius) is heavily vegetated, with aerial imagery showing approximately 75% remaining vegetation. Large amounts of land in the area are protected as the property is bordered to the North, East and West by CALM Managed Lands (State Forest and National Park).

Given the pre-European extent remaining of the aforementioned beard vegetation association and Mattiske complex and the relatively high proportion of vegetation remaining within the local area, the vegetation of the clearing application area is unlikely to constitute a significant remnant of vegetation.

Methodology Mattiske (1998)
Shepherd et al (2007)
GIS DataSets:
- CALM Managed Lands and Waters - CALM 01/06/05
- Mattiske Vegetation - CALM 1/03/1998
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 15 Jan 09

(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 clearing application area is located within the Nomalup Inlet and Frankland River Catchment. The Frankland River is situated 2.4km south east of the application area. There are several minor perennial watercourses occurring throughout the application area. The eastern side of the largest section of vegetation under application has a minor perennial watercourse, a dam present as is a paluslope area. There are a further 2 palusplain sites and one other paluslope site which may be negatively impacted by the proposed clearing. These sites are all located near the vegetation under application in the southern sections. To adequately protect these wetlands it is recommended that a 100 metre vegetated buffer be retained around all paluslope and palusplain areas (WRC 2001). These will be imposed on the clearing permit.

To ensure the integrity of the watercourses present throughout the applied area are maintained, it is recommended that a 30 metre vegetated buffer be retained around all watercourses within or adjacent to the vegetation under application as conditions of any permit.

Methodology WRC (2001)
GIS DataSets:
- Geomorphic Wetlands, Augusta to Walpole (13/07/06)
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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 soils of the application area are described as steep hilly terrain with rock outcrops and steep-sided valleys, some with swampy floors. Chief soils seem to be hard acidic and neutral yellow mottled soils and hard acidic red soils (Northcote et al. 1960 - 1968). The topography varies within the application area from 65 metres in the south, 150 metres within the central parts of the application area and 95 metres in the north west sections. There is no evidence to suggest that the proposed clearing will lead to increased salinity. Buffers will be left around watercourses and wetlands and snig tracks will be cross contour to ensure no water erosion or siltation occurs (DEC, 2009). Vegetation management conditions will also be imposed on a permit to further reduce the likelihood of any possible land degradation.

Methodology DEC (2009)
GIS DataSets:
- Hydrogeology, Statewide 05 Feb 2002
- 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 West Frankland State Forest is located adjacent to the southern most section of vegetation under application (Lot 10245). Granite Peaks State Forest is located 300 metres west of the north west corner (Lot 10250). Gladstone State Forest is located 1 km west of the vegetation under application within Lot 10250, the Mt Frankland South National Park is located 700 metres from Lot 10245.

Given the extent of the surrounding conservation areas, the value of the applied area as an ecological linkage is reduced. It is therefore considered unlikely that the proposed clearing is at variance to this principle. To minimise the risk of introduced pathogens and weeds, a weed and die back control condition will be imposed on the permit.

Methodology GIS DataSets:
- CALM Managed Lands and Waters - CALM 01/06/05
- Deep River 50cm Orthomosaic - Landgate 2004 (9/10/07)

(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

Rainfall is 1200 mm annually. the elevation ranges between 65 metres in the southern sections (Lot 10245) to 150 metres in the central parts of Lot 10250. The soil type (Ta10), is associated with a hard acidic and neutral yellow mottled soils and hard acidic red soils (Northcote et al. 1960-1968). These soils are usually associated with steep hilly to hilly terrain with rock outcrops and steep-sided valleys which are considered to have a low risk of water logging.

Although no management plan has been submitted by the applicant, they have stated that the clearing will be done by the selective thinning of vegetation, selectively targeting small areas of vegetation each year (DEC, 2009). Wetlands and watercourses within or adjacent to the vegetation under application will be protected by vegetated buffers of 100 and 30 metres respectively (WRC 2001), these will be imposed on the clearing permit.

Methodology DEC (2009)
Northcote (1960 - 1968)
WRC (2001)
- Groundwater Salinity Statewide DoW 13/07/06
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrographic catchments, subcatchments - DoW 01/06/07
- Hydrography, linear - DOW 13/7/06
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Salinity Risk LM 25m - DOLA 00
- Topographic Contours, Statewide - DOLA 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 area of vegetation under application is located on soil type Ta10, and is associated with a hard acidic and neutral yellow mottled soils and hard acidic red soils (Northcote et al. 1968).

These soils are usually associated with steep hilly to hilly terrain with rock outcrops and steep-sided valleys

which are considered to have a low risk of water logging and flooding.

Methodology Northcote et al (1968)
GIS Database:
- Soils, statewide
- Topographic contours, statewide

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

Comments

The proponent has been conducting thinning operations within the properties under application since 2001.

Methodology

4. Assessor's comments

Comment

The clearing application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986 and has found:

- Principle (f) to be at variance
- Principle (a) may be at variance
- All other Principles are not likely to be at variance

5. References

- Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- DEC (2008) Memo re Standard Wetlands Advice for Native Vegetation Conservation Branch. Dated 17/07/2008. Species and Communities Branch, Department of Environment and Conservation, Western Australia (TRIM Ref. DOC59490).
- DEC (2009) Warren Regional Advice. Department of Environment and Conservation Trim Ref DOC75014
- EPA (2004) Environmental Protection of Wetlands. Preliminary Position Statement No.4. Perth, 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.
- 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.
- Water and Rivers Commission (2001). Position Statement: Wetlands, Water and Rivers Commission, Perth.

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
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)

