



1. Application details

1.1. Permit application details

Permit application No.: 1201/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Brett Douglas McKenney & Sonia May-Annette McSwain

1.3. Property details

Property: LOT 13 ON PLAN 46915 (KUNUNURRA 6743)

Local Government Area:

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
3.9		Mechanical Removal	Horticulture

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
Beard Vegetation Association 909: Grasslands, high grass savanna low tree; terminalia & bauhinia over upland tall grass (Hopkins et al, 2001).	The area under application is in excellent condition, retaining a dense understorey of grasses and an upper storey of eucalypts and iron woods. There is small scale disturbance to the site from vehicles driving through the bush. Only two weed species were located, and in small, isolated numbers.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The description of the vegetation to be cleared was obtained during a site visit by DAFWA and DoE staff on 10 May 2006 (DoE TRIM REF: KND1045).

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 vegetation at the site is comprised of a single, relatively uniform community, represented by Beard Vegetation Association 909 (Hopkins et al, 2001). Species present on site include long-fruited bloodwood, ironwood, broadleaf paperbark, watties, wild pear, bauhinia, silky grevillea and mangaroo (DAFWA, 2006). The area has experienced minor degradation from vehicle tracks and fire damage (DoE site visit, 2006).

This Association is well represented in the undeveloped areas surrounding the site, which have not been subject to disturbance. Hence, the area surrounding the area under application is likely to be similar or have higher biological diversity than the proposal area.

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

Methodology

Hopkins et al (2001);
DAFWA Advice (2006);
DoE Site visit (2006)

(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

A desktop survey found there were no known Threatened Fauna within the area proposed to be cleared. The closest known Threatened Fauna is located approximately 2.5 kilometres to the south west of the area applied to clear. This was a day sighting of a Priority 4 bird species. The habitat type that supports this species is not limited to the site proposed for clearing and is extensively represented in the local and wider area.

The clearing of 3.9 hectares of vegetation from the proposal area is not likely to significantly impact on the fauna species of the area, priority or otherwise, due to the small area to be cleared.

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

Methodology GIS Database:
- Threatened Fauna - CALM 30/9/05

(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 desktop survey found there were no Declared Rare or Priority Flora within the area proposed to be cleared, nor within a 50km radius of the area.

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

Methodology GIS Database:
- Declared Rare and Priority Flora List - CALM 01/07/05

(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

A desktop survey found there were no known Threatened Ecological Communities within the area proposed to be cleared. The closest known Threatened Ecological Community is an un-named entity approximately 46 kilometres to the north-north east of the area applied to clear.

The clearing of 3.9 hectares of vegetation from the proposal area is not likely to significantly impact on this community, due to the excessive distance between the two.

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

Methodology GIS Database:
- Threatened Ecological Communities - CALM 12/4/05

(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 of the area applied to clear is Beard Vegetation Association 909 (Hopkins et al, 2001). Approximately 0.5% of Beard Vegetation Association 909 is located within IUCN Class I-IV Reserves (Shepherd et al, 2001). There is 288,752 hectares of this Association remaining, approximately 99% of the pre-European extent,(Shepherd et al, 2001), which indicates it is well represented in the natural environment. Therefore, this Association is of least concern for biodiversity conservation (Department of Natural Resources and Environment, 2002).

Clearing of 3.9 hectares of vegetation will not significantly reduce the remaining extent of this Association, therefore the proposal is not likely to be at variance to this Principle.

Methodology Hopkins et al (2001);
Shepherd et al (2001);
Department of Natural Resources and Environment (2002);
GIS Database:
- Pre-European Vegetation - DA 01/01

(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

The Ord River lies approximately 2.7 kilometres west and a major tributary of the Ord River lies approximately 1 kilometre south of the area applied to clear. Both of these features are also RAMSAR and ANCA wetlands. Additional areas prone to inundation and classified as ANCA wetlands are located 1 kilometre to the north west and 1.3 kilometres to the south east. Due to these distances and the small area proposed for clearing, it is not likely that the clearing of 3.9 hectares of vegetation will effect the rivers or wetlands.

The area to the immediate south of that under application is prone to inundation due to poorly draining soils. The proponent is aware of the issue of inundation and has excluded this area from the clearing application for this reason. The area will remain vegetated which will minimise any drainage issues in the immediate area.

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

Methodology GIS Databases:

- Hydrography, linear (hierarchy) - DOE 13/4/05
- RAMSAR, Wetlands - CALM 14/02/03
- ANCA, Wetlands - CALM 08/01

(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 clearing is likely to be blade down, resulting in removal of all root systems that currently stabilise soils and prevent erosion. The soils on site are deep red and yellow siliceous sands (Northcote et al, 1960-68) so have a moderate to high potential for erosion (Schoknecht, 2002). However, an on-site assessment determined the area was not likely to be effected by salinity, eutrophication, wind or water erosion (DAFWA, 2006). There is potential for waterlogging to be an issue, however only during the wet season (DAFWA, 2006). This will not be an issue for horticultural purposes as the growing season is during the dry season.

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

- Methodology** Northcote et al (1960-68);
Schoknecht (2002);
DAFWA Advice (2006);
GIS Database:
- Soils, Statewide - DA 11/99

(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

Mirima National Park is located approximately 2 kilometres to the north of the area under application. The distance between the Park and the proposal area is considered adequate for separation of these activities and it is unlikely that the proposed clearing will impact on the Park.

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

- Methodology** GIS Database:
- CALM Managed Lands and Waters - CALM 1/07/05

(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

The proposal area is located within the Canning-Kimberley groundwater subarea and the Ord River and Tributaries surface water catchment area, proclaimed under the *Rights in Water and Irrigation Act 1914*. It is located approximately 1 kilometre to the north of a major tributary to the Ord River. The Public Drinking Water Source Protection Area, consisting of a P1 protection zone, lies approximately 5 kilometres north west of the area.

Due to the small size of the proposed clearing and the distance to the river and Public Drinking Water Source Protection Area, it is unlikely that the clearing will cause deterioration in the quality of surface or underground water.

- Methodology** GIS Databases:
- RIWI Act, Groundwater Areas - WRC 13/06/00
- RIWI Act, Surface Water Areas - WRC 18/10/02
- Hydrography, linear (hierarchy) - DOE 13/4/05
- Public Drinking Water Source Areas (PDWSAs) - DOE 07/02/06

(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

Flooding occurs seasonally over the December to March period, where the flood height and duration are lengthy and extreme. The clearing of 3.9 hectares of vegetation is not likely to increase the incidence or intensity of these naturally occurring flood events.

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

Methodology GIS Database:
- Rainfall, Mean Annual - BOM 30/09/01

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

Comments

The area applied to clear is located on freehold land. There are two Native Title claims surrounding the property by the Miriwung Gajerrong peoples (WC94-002, WC04-004) however this property is excluded from the claims.

There are no Aboriginal Sites of Significance present within the freehold land area.

Water is required for the horticultural activities proposed on the property. The proponent has submitted an application to the Water and Rivers Commission for a water licence under the *Rights in Water and Irrigation Act 1914* to sink a bore.

The proposed activity does not require a Works Approval or Licence under the *Environmental Protection Act 1986*.

The area under application has been subject to four referrals to the Environmental Protection Authority. Three of these referrals are not related to the proposal under assessment. The fourth referral applies to the amendment of the zoning from Rural Agriculture 1 zone to Rural Agriculture 2 zone and Tourist zone (CRN 170667). The block subject to the clearing proposal is zoned Rural Agriculture 2, and the proposed land use activities comply with this zoning, therefore the proposal is not inconsistent with this advice.

The Department of Agriculture and Food WA has recommended that the proponent retain a 50m vegetation buffer on the western boundary of the property, to minimise any spray drift from the nearby cleared agricultural land.

Methodology DAFWA Advice (2006);
GIS Databases:
- Native Title Claims - DLI 7/11/05
- Aboriginal Sites of Significance - DIA
- Environmental Impact Assessments - DOE 24/02/06

4. Assessor's recommendations

Purpose	Method Applied	area (ha)/ trees	Decision	Comment / recommendation
Horticulture	Mechanical Removal	3.9	Grant	Assessable criteria have been addressed and no objections were raised. The proposal was found not likely to be at variance to all principles. The Assessing Officer recommends that the permit should be granted. The Department of Agriculture and Food WA has recommended that the proponent retain a 50m vegetation buffer on the western boundary of the property, to minimise any spray drift from the nearby cleared agricultural land. The applicant will be required to obtain a water licence under the <i>Rights in Water and Irrigation Act 1914</i> from the Water and Rivers Commission.

5. References

- DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DoE TRIM ref
- Department of Environment (2006) Site Visit. DoE TRIM Ref: KND1045
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- 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.
- Schoknecht N. (2002) Soil Groups of Western Australia. A simple guide to the main soils of Western Australia. Resource Management Technical Report 246. Edition 3.
- 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.

6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
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 DoE)

