



1. Application details

1.1. Permit application details

Permit application No.: 1789/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Capricorn Land Holdings Pty Ltd

1.3. Property details

Property: LOT 605 ON PLAN 215941

Colloquial name:

1.4. Application

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

2. Site information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

The vegetation of the area is open Eucalypt woodland containing a wide variety of herbaceous and woody species of plants (DEC, 2007). Species include an overstorey of *Acacia holosericea*, *Adansonia gregorii*, *Bauhinia cunninghamii*, *Brachychiton diversifolius*, *Corymbia bella*, *Corymbia polycarpa*, *Eucalyptus camaldulensis*, *Eucalyptus tectifica*, *Grevillea sp.*, *Gyrocarpus americanus*, *Melaleuca viridiflora*, *Owenia vernicosa*, *Pandanus spiralis* and *Tinospora smilacina*, a midstorey of *Brachychiton diversifolius*, *Calotropis procera*, *Cochlospermum fraseri*, *Crotalaria aff. crispata*, *Crotalaria medicaginea*, *Crotalaria cunninghamii*, *Crotalaria trifoliatrum*, *Ficus opposita*, *Petalostigma quadriloculare* and *Planchonia careya* and an understorey of *Platzoma microphyllum*, *Sorghum sp.* *Themeda sp.* (DEC, 2007).

Clearing Description

The area proposed to be cleared has experienced previous disturbances from cattle grazing, historical clearing and fires. Three areas of notable variation in vegetation structure were identified.

The eastern area has been either parkland cleared or fully cleared in the past, however has regenerated with a dominance of grasses and *Acacia sp.* It has also experienced a 'hot' fire in early 2007. This area constitutes approximately 25% of that currently proposed to be cleared.

The central area of open woodland shows heavy grazing pressures on grasses and extensive trampling by cattle.

The western area is more heavily wooded with the least amount of disturbance.

Vegetation Condition

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)

Comment

The description of the vegetation to be cleared was obtained during a site visit by DEC staff on 18 October 2006 and on 28 February 2007 (DEC TRIM Ref: DOC16929)

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 within the proposal area is comprised of a single, relatively uniform community represented by Beard Vegetation Association 909 (Hopkins *et al*, 2001). The vegetation on-site visit is open Eucalypt woodland containing a wide variety of herbaceous and woody plant species (DEC, 2007). This vegetation type occurs throughout the immediate vicinity of the local area and no specific vegetation association unique to this area was identified (DEC, 2007). The area under application has experienced degradation from cattle grazing, fire regimes and historical clearing. Surrounding areas have also experienced similar degradation, ensuring the biodiversity of the local area is similar to that of the area under application.

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

Methodology DEC (2007);
GIS Database
- Pre-European Vegetation

(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 desk top study found that there are no recorded occurrences of threatened fauna taxa within the area that is proposed to be cleared.

The following species are likely to occur within the local area, and are protected under the Wildlife Conservation (Specially Protected Fauna) Notice 2006 (2):

* Orange Leaf-nosed Bat (*Rhynonictoris aurantius*) - Schedule 1 Threatened - prefers humid caves and tree hollows (Australian Fauna, 2007).

The area proposed to be cleared does not contain habitat suitable for this species.

The area proposed to be cleared is not considered to be significant habitat for fauna as this habitat type is not limited to the site proposed for clearing and is extensively represented in the local and wider area.

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

Methodology Wildlife Conservation (Specially Protected Fauna) Notice 2006 (2);
Australian Fauna (2007);
SAC Bio Datasets 160507

(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 are no recorded occurrences of Declared Rare or Priority flora within the proposal area.

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

Methodology SAC Bio Datasets 160507
- Declared Endangered Flora
- WA Herbarium - Kimberley

(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 recorded occurrences of threatened or priority ecological communities within the proposal area.

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

Methodology SAC Bio Datasets 16/05/07
- Threatened Ecological Communities
- 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 State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with a current extent below 30% of the pre-European settlement extent (Department of Natural Resources and Environment, 2002).

The area applied to clear is a component of Beard Vegetation Association 909 (Hopkins et. al, 2001). Approximately 1% of this Association is located within the IUCN Class I-IV and CALM managed Reserves (Shepherd et al, 2001). There is 280,626 ha of this Association remaining, approximately 99.6% 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 118 hectares of vegetation will not significantly reduce the remaining extent of this vegetation Association and the area proposed for clearing is not remnant vegetation.

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

(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 wetlands within the area proposed for clearing.

A minor, ephemeral watercourse passes through the middle of the area proposed to be cleared. The proponent has indicated an intention not to interfere with this watercourse to enable adequate drainage from the plantation. The Shire of Wyndham-East Kimberley does not oppose this action.

A second minor, ephemeral watercourse runs along the north east corner of the boundary of the area proposed for clearing. This watercourse has been excluded from the application to provide adequate drainage of storm water runoff from the hills beyond.

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

Methodology GIS Database:

- RAMSAR, Wetlands - DEC 02/03/07
- ANCA, wetlands - DEC 02/03/07
- Hydrography, Linear (hierarchy) - DOW 02/03/07
- Hydrography, Linear - DEC 02/03/07
- Topographic contours - DEC 02/03/07

(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 area proposed for clearing has a gentle slope of 0.8% to 1% (DAFWA, 2007). Soils occurring within the application area are the Lateritic complex and Steeple Peak. The Lateritic complex soils consist of coarse sand over a gravel layer contained within a sand or sandy clay matrix (DAFWA, 2007). Steeple Peak soils are shallow earthy sand over weathering sandstone (DAFWA, 2007). The area has been subject to disturbance from cattle grazing, historical clearing and fires. It is not likely that the proposed clearing will exacerbate the level of erosion currently experienced within the application area.

There is some risk of soil erosion on bare soils under intense rainfall conditions (DAFWA, 2007). Given the proposed land use is for a sandalwood plantation, some mature trees within the area will be retained as host plants and planting will occur immediately after clearing (Capricorn Land Holdings, 2007). Wet season rains are not expected until December or January, by which time vegetation cover will be sufficiently advanced so as to minimise erosion.

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

Methodology DAFWA (2007);

- Capricorn Land Holdings (2007);
- 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

The area proposed to be cleared is approximately 13km north of Mirima National Park. The proposed clearing is sufficiently distanced from the aforementioned National Park so as to have a negligible impact on its conservation values.

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

Methodology GIS Database:

- CALM Managed Lands and Waters - DEC 02/03/07

(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

The area that is proposed to be cleared is located within the Canning Kimberley groundwater sub-area, proclaimed under the *Rights in Water and Irrigation Act 1914*. The Public Drinking Water Source Area, consisting of a P1 protection zone, is located 19 km south west of the area proposed to be cleared. Due to this large distance, the clearing is not likely to cause deterioration in the quality of the groundwater.

A minor, ephemeral watercourse passes through the middle of the area proposed to be cleared. The proponent intends on retaining this watercourse to enable adequate drainage from the plantation. This drainage line connects to Drain 4 of the irrigation system within the Ord River Irrigation Area and later enters the Ord River, a system that currently receives drainage water from horticultural farms in the area. Due to the relatively small area proposed to be cleared in comparison to the large irrigation area that drains into this system, it is not likely that the proposed clearing will cause additional deterioration of the water quality.

A second minor, ephemeral watercourse runs along the north east corner of the boundary of the area proposed for clearing. This watercourse has been excluded from the application to provide adequate drainage of storm water runoff from the hills beyond the property. The proponent does not intend on using this drainage line in the plantation design, therefore it will not be impacted upon by the clearing.

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

- Methodology** GIS Database:
- Public Drinking Water Source Areas (PDWSA) - DoW 2007
 - Hydrography, Linear (hierarchy) - DOW 02/03/07
 - Hydrography, Linear - DEC 02/03/07

(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 occurs within the Ord River Irrigation Area, where flood waters drain via the irrigation drainage system to the Ord River. During flood events, the capacity of the drainage system and the river to divert flood waters off farms is limited, due to the high level of flood waters entering the system in a short period of time. The proposed clearing of 118 hectares of vegetation may contribute to the amount of flood waters entering the drainage system, however it is not likely to influence the incidence or intensity of any flooding in this area.

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

- Methodology** GIS Database:
- Rainfall, Mean Annual - BOM 02/03/07
 - Topographic Contours - DOLA 02/03/07
 - Hydrography, Linear (Hierarchy) - DOW 02/03/07
 - Hydrography Linear - DOW 02/03/07

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

Comments

The area proposed for clearing is located on Freehold land.

The Department of Agriculture and Food WA (2007) has recommended that a soil survey be performed to determine the viability of the land to support a plantation. The proponent has performed extensive research with their trial plantation in the West Kimberley, with similar soils and climate, and is confident that their proposal is viable (Capricorn Land Holdings, 2007). Therefore, Department of Environment and Conservation does not consider a soil survey necessary prior to issuing this clearing permit.

The area under assessment has been subject to three previous referrals to the Environmental Protection Authority. None of these referrals are related to the proposal, however one is in relation to the Kununurra-Wyndham Area Development Strategy (CRN 136082). The proposal is not at variance to this strategy.

The Shire of Wyndham-East Kimberley does not object to the proposal.

Water is required for the plantation activities proposed on the property. Water requirements within the Ord River Irrigation Area are managed by the Ord Irrigation Co-operative Inc. The proponent holds a current water allocation with the Ord Irrigation Co-operative Inc. in Kununurra, which is sufficient for the purpose of a 118ha sandalwood plantation. This water allocation is likely to need increasing upon expansion of the plantation.

The proposed works are not listed as Prescribed Premises under the *Environmental Protection Regulations 1987*, therefore no licences or works approvals are required.

There are no Native Title claims over the area proposed to be cleared. A submission was raised that the granting of this clearing permit may be a future act under the *Native Title Act 1993*. As the proposal is located on Freehold land, native title has been extinguished. Therefore, the granting of this clearing permit is not a future act.

A submission was raised that the clearing may breach the *Aboriginal Heritage Act 1972*. There are no recorded Aboriginal Sites of Significance present within the area proposed to be cleared, however it is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

Methodology

DAFWA (2007);
Capricorn Land Holdings (2007);
GIS Database:
- Native Title Claims - DEC (2007)
- Aboriginal Sites of Significance y DIA
- Environmental Impact Assessments y DOE 24/02/06

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Plantation	Mechanical Removal	118	Grant	Assessable criteria have been addressed and submission grounds considered. The proposal was found not likely to be at variance to all principles.

The Assessing Officer recommends that the permit be granted.

5. References

Australian Fauna (2007) <http://www.australianfauna.com>
Capricorn Land Holdings (2007) Response to concerns raised via external advice. DEC TRIM Ref: DOC24680
DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DEC TRIM Ref: DOC24583
Department of Environment and Conservation (2007) Inspection of Land Clearing Application Area. DEC TRIM Ref: DOC16929
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.
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.
Wildlife Conservation (Specially Protected Fauna) Notice 2006 (2)

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 DoW)