



1. Application details

1.1. Permit application details

Permit application No.: 2423/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Raregold Pty Ltd

1.3. Property details

Property: LOT 11 ON PLAN 16971 (KUNUNURRA 6743)

Local Government Area: Shire Of Wyndham-East Kimberley

Colloquial name:

1.4. Application

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

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
The vegetation of the area is open Eucalypt woodland containing a wide variety of herbaceous and woody species of plants (DEC, 2007). Species that may be present on the site include an overstorey of <i>Acacia holosericea</i> , <i>Adansonia gregorii</i> , <i>Bauhinia cunninghamii</i> , <i>Brachychiton diversifolius</i> , <i>Corymbia bella</i> , <i>Corymbia polycarpa</i> , <i>Eucalyptus camaldulensis</i> , <i>Eucalyptus tectifica</i> , <i>Grevillea</i> sp., <i>Gyrocarpus americanus</i> , <i>Melaleuca viridiflora</i> , <i>Owenia vernicosa</i> , <i>Pandanus spiralis</i> and <i>Tinospora smilacina</i> , a midstorey of <i>Brachychiton diversifolius</i> , <i>Calotropis procera</i> , <i>Cochlospermum fraseri</i> , <i>Crotalaria</i> aff. <i>crispata</i> , <i>Crotalaria medicaginea</i> , <i>Crotalaria cunninghamii</i> , <i>Crotalaria trifoliastrium</i> , <i>Ficus opposita</i> , <i>Petalostigma quadriloculare</i> and <i>Planchonia careya</i> and an understorey of <i>Platyzoma microphyllum</i> , <i>Sorghum</i> sp., <i>Themeda</i> sp. (DEC, 2007).	<p>The clearing application is for 40 hectares for the purpose of a horticultural crop.</p> <p>The southern half of the block is currently under horticultural crops. A stream passes between this area and the area applied to clear.</p>	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The description of the vegetation to be cleared was obtained from a site visit by DEC staff on an adjacent property (DEC TRIM Ref: DOC16929), and site photos.

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 (DEC, 2008).

There are nine recorded occurrences of priority flora within the local area (10km radius):

Desmodium flagellare (P1) - cracking clay;
Echinochloa kimberleyensis (P1) - black soils in swamps;
Goodenia durackiana (P1) - grasslands over black clay;
Typhonium sp. Kununurra (P1) - cracking clay;
Fimbristylis laxiglumis (P2) - black clay;
Platysace saxatilis (P2) - on sandstone cliffs; and
Acacia richardsii (P3) - on sandstone hills and rocky areas ;
Brachychiton tuberculatus (P3) - red or yellow sands on undulating plains;
Ficus lilliputiana (P4) - rocky sandstone (FloraBase, 2008).

The area proposed to be cleared contains a soil type of deep red and yellow siliceous sands (Northcote et al, 1960-68). This habitat is suitable for Brachychiton tuberculatus. A targeted survey was performed on the site for this species and one individual was located (DEC, 2008).

This species has been identified at a number of sites within the local area (50km radius).

Given the extensive range of similar habitat within the surrounding area as that under application, the proposed clearing of 40 hectares of vegetation is unlikely to have a significant impact on the biodiversity of the area.

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

Methodology Hopkins et al (2001);
DEC (2007);
DEC (2008);
SAC Bio Datasets 020508;
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

There are no recorded occurrences of threatened or priority fauna within the area proposed to be cleared, however the following five species are protected under the Wildlife Conservation (Specially Protected Fauna) Notice 2006 (2), and have been recorded within the local area (10km radius):

- * Orange Leaf-nosed Bat (Rhynchonictes australianus) (Declared Threatened) - prefers humid caves and tree hollows (Menkhorst and Knight, 2004).
- * Flock Bronzewing (Phaps histrionica) (P4) - habitat of arid zone grassy plains (Simpson and Day, 2004).
- * Partridge Pigeon (Geophaps smithii smithii) (P4) - grassy woodlands and open areas near water (Simpson and Day, 2004).
- * Water-rat (Hydromys chrysogaster) (P4) - streams, slow inland rivers and lakes (Menkhorst and Knight, 2004)
- * Burdekin Duck (Tadorna radjah rufitergum) (Other Specially Protected) - tropical wetlands, rivers and flooded areas (Simpson and Day, 2004).

The area proposed to be cleared does not contain habitat suitable for these 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);
Menkhorst and Knight (2004);
Simpson and Day (2004);
SAC Bio Datasets 020508

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments Proposal is not at variance to this Principle

There are no recorded occurrences of rare flora on or within the local area (10km radius).

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

Methodology FloraBase (2008);

Northcote et al (1960-68);
DEC (2008);
SAC Biodatasets 020508;
GIS Database:
- Soils, Statewide

(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 at variance to this Principle

There are no recorded occurrences of threatened or priority ecological communities within the local area (10km radius).

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

Methodology SAC Bio Datasets 020508

(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 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 DEC 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). As this association is well represented in the natural environment, it is of least concern for biodiversity conservation. A site visit showed this vegetation type present in surrounding undeveloped areas (DEC, 2008).

The clearing of 40 hectares of vegetation is not likely to significantly reduce the remaining extent of this vegetation association, therefore the proposal is not likely to be at variance to this principle.

Methodology Hopkins et.al (2001);
Shepherd et. al (2001);
DEC (2008);
GIS Database
- 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 not likely to be at variance to this Principle

There are no wetlands or watercourses within the area proposed for clearing.

A minor, ephemeral drainage line pass through the block, between the area currently under horticulture and the area proposed to be cleared. The proponent has excluded this area from the application to clear, to retain the ecological values of the system.

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

Methodology GIS Database:
- RAMSAR, Wetlands
- ANCA, wetlands
- Hydrography, Linear (hierarchy)
- Hydrography, Linear

(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

Soils occurring within the local area are the Cockatoo Sand soil type, consisting of sandy loam to sandy clay surface textures (DAFWA, 2008). Given the very gentle slope of the land and the soil type, erosion is unlikely (DAFWA, 2008). It is not likely that the proposed clearing will exacerbate the level of erosion currently experienced within the application area.

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

Additionally, the proponent has excluded a minor, ephemeral drainage line that passes through the block, between the area currently under horticulture and the area proposed to be cleared, to further prevent erosion occurring.

Methodology DAFWA (2008);
GIS Database:
- 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 area proposed to be cleared is approximately 5.5km north of Mirima National Park. Due to this large distance, the clearing is not likely to have an impact on the conservation values of this area.

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

Methodology GIS Database:
- DEC Managed Lands and Waters

(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 proposed area 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 10 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.

There are no watercourses within the area proposed to be cleared, therefore the clearing is not likely to cause deterioration in the quality of surface water.

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

Additionally, the proponent has excluded a minor, ephemeral drainage line that passes through the block, between the area currently under horticulture and the area proposed to be cleared, to prevent deterioration in water quality.

Methodology GIS Database:
- Public Drinking Water Source Areas (PDWSA)
- Hydrography, Linear (hierarchy)
- Hydrography, Linear

(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 at variance to this Principle**
A hydrological study performed on the property found the block drains relatively well, predominantly by sheet flow (Opus Qantec McWilliam, 2007). During previous flooding events in the local area in March 2000, February 2001, March 2001 and early 2006, this property was not flooded or inundated. The drainage channel that passes through the block is distinct, well protected from erosion and stabilised with well-vegetated banks. The drainage channel did not overflow, and this small catchment is not one of the major contributors, to previous flooding events (Opus Qantec McWilliam, 2007). As recommended, this channel is excluded from the application to clear.

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

Methodology Opus Qantec McWilliam (2007);

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

Comments
No submissions have been received for this application.

The proponent has received an extension to their existing water allocation licence to irrigate an additional 35 hectares (Trim Ref: DOC 58634).

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

As the land is freehold, native title is extinguished.

There are no recorded Aboriginal Sites of Significance present within the area proposed to be cleared.

- Methodology** GIS Database:
- Native Title Claims
 - Aboriginal Sites of Significance
 - Environmental Impact Assessments

4. Assessor's comments

Comment

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

- not likely to be at variance to principles (a), (b), (e), (f), (g), (h) and (i)
- not at variance to principles (c), (d) & (j)

5. References

- DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DEC TRIM Ref: DOC52441
- Department of Environment and Conservation (2007) Site Inspection Report. Native Vegetation Conservation CPS 1723/1. DEC TRIM Ref: DOC16929
- Department of Environment and Conservation (2007) Site Inspection Report. Native Vegetation Conservation CPS 2423/1. DEC TRIM Ref: DOC54134
- FloraBase (2008) FloraBase the Western Australian Flora 05/05/2008 <http://florabase.calm.wa.gov.au/browse/profile/> DEC TRIM Ref: DOC52181
- 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.
- Menkhorst, P. and Knight, F. (2004) A Field Guide to the Mammals of Australia. 2nd Edition. Oxford University Press.
- 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.
- Opus Qantec McWilliam (2007) Proposed Amendment 20 to Shire Wyndham East Kimberley Planning Scheme No. 7 Rezoning Lot 11 (Weaber Plains Road). Supplementary Report. Revision B. Prepared for Raregold Pty Ltd.
- 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.
- Simpson, K. and Day, N (2004) Field Guide to the Birds of Australia. 7th Edition. Penguin Books Ltd.
- 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 DEC)

