



1. Application details

1.1. Permit application details

Permit application No.: 905/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Mr Robert Fraser

1.3. Property details

Property: LOT 53 ON PLAN 226300 (KARRAMINDIE 6429)
Local Government Area: Shire Of Coolgardie
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
10		Mechanical Removal	Mineral Exploration

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 9 - Medium woodland; coral gum (E. torquata) & Goldfields blackbutt (E. lesouefi) (Shepard et al 2001)	Mixed Eucalypt woodlands with Atriplex nummularia shrub understorey on shallow alkaline loams with calcrete nodules and Broad drainage tracts with Eucalyptus salmonophloia, E. slubris woodland with Sclerostegia disarticulata on saline caly flats (Western Botanical, 2004).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The area under application is for clearing 10 ha in a 50 ha lease for prospecting. Aerial photography for the area shows the vegetation to contain scattered trees with some understorey..

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 under application is a common vegetation association for the area with more than 250,000 ha remaining (Shepherd et al, 2001).

Aerial photography for the area shows that the vegetation contain scattered trees with sparse understorey. This is consistent with the vegetation described by Western Botanical.

It is therefore unlikely that the clearing of vegetation as proposed would be at variance with this Principle.

Methodology Western Botanical (2004) (DoE Trim No. HD26371)
GIS atassets
Lake Lefroy 1.4m Orthomosaic - DLI 02
Pre-European Vegetation - DA 01/01

(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 proposal is for clearing 10 ha over 5 years for prospecting, and is of a relatively small, scattered nature. The area under application does not appear to act as an ecological linkage. A condition of granting the clearing permit is to rehabilitate the area upon completion of prospecting. This would mitigate somewhat against potential impacts on fauna and habitat values in the long term.

Methodology GIS Database:

(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 known Declared Rare Flora within 50 km of proposed clearing. However there are 15 known priority flora populations within this area. Two of these priority species (*Acacia websteri* and *Eremophila praecox*) occur on the same vegetation type.

No rare or priority species were identified during the flora survey of the project area (Western Botanical, 2004).

Methodology Western Botanical (2004) (DoE Trim No. HD26371).
GIS Datasets
Declared Rare and Priority Flora List - CALM 1/7/05

(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

There are no known TEC's within 50 km of the proposed clearing.

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 State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-European Settlement (Department of Natural Resources and Environment, 2002; EPA, 2000).

Vegetation complexes in this application are well above the recommended minimum of 30% representation.

The vegetation at the site consists of Beard Vegetation Association 9 - Medium woodland; coral gum (*E. torquata*) and goldfields blackbutt (*E. lesouesii*) (Hopkins et al. 2001) of which Hopkins et al (2001) states there is 99.7% of the pre-European extent remaining (Shepherd et al. 2001).

This vegetation type is therefore of least concern for biodiversity conservation (Department of Natural Resources and Environment 2002).

Methodology Shepherd et al. (2001)
Hopkins et al. (2001)
Department of Natural Resources and Environment (2002)
EPA (2000)
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 at variance to this Principle

The vegetation to be cleared is not associated with a wetland or watercourse.

Methodology GIS Databases:
Hydrology, linear - DOE 1/2/04;
RAMSAR, Wetlands - CALM 21/10/02

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal is not at variance to this Principle

The mean annual rainfall in the area is 250 mm and the mean annual evaporation rates is between 2600-2800mm. There is little surface flow during a normal rainfall season, therefore land degradation through erosion would be negligible. The area under application is for prospecting and hence the clearing will not be concentrated in the one area. This will also reduce the risk of land degradation on and off-site.

Methodology GIS Databases:

(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 at variance to this Principle

There are 4 CALM managed lands within 50km radius of the proposed clearing. The closest Kambalda Nature Reserves is located about 7km south east of the proposed clearing.

The area applied to be cleared does not contribute to, provide a buffer for, or provide an ecological linkage to any of these conservation areas. This proposal is therefore not at variance to this principle.

Methodology GIS Database: CALM Managed Lands and Waters - 1/06/04

(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 is not likely to affect surface water quality as there are no watercourses within the proposed clearing area and the groundwater is highly saline. The mean annual rainfall is 250mm and the mean annual evaporation is 2600 - 2800mm as such run off is likely to be minimal. The low rainfall and high evaporation rate also infers low recharge rates.

Methodology GIS Database:
 Groundwater Salinity, Statewide - 22/02/00
 Rainfall, Mean Annual - BOM 30/09/01
 Evaporation Isopleths - BOM 09/98

(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

Given the small and scattered nature of clearing (10 ha), the little surface flow due to low rainfall and high evaporation rates, and the distance to the nearest lake or watercourse, the clearing as proposed is unlikely to be at variance with this principle.

Methodology GIS Databases:- Rivers 250K - GA
 Lakes 250K - GA

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

Comments

No submissions were received and there are no other relevant approvals or planning instruments that affect this proposal.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mineral Exploration	Mechanical Removal	10	Grant	The clearing principles have been addressed and it is considered that the clearing as proposed is not likely to be at variance to any of them. Given the small area proposed to be cleared, the assessing officer recommends that the clearing permit be granted with the revegetation and reporting conditions.

5. References

AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.
 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.
 EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority.
 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, BJ (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.

Western Botanical (February 2004) Flora, vegetation and habitats of the South Kal Mines, Pty Ltd Holdings and Surrounding Area, WA. TRIM ref. HD26371

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)