



1. Application details

1.1. Permit application details

Permit application No.: 1225/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Nannup

1.3. Property details

Property: LOT 300 ON PLAN 41104 (CUNDINUP 6275)
Local Government Area: Shire Of Nannup
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2.8		Mechanical Removal	Extractive Industry

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 Gale (GA) - Tall open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> - <i>Corymbia calophylla</i> - <i>Banksia grandis</i> on slopes off escarpment in perhumid and humid zones (Mattiske Consulting 1998)	A site visit has shown that the proposed clearing ranges from good to very good. There is disturbance from a track that runs through the proposed clearing. History of the area includes past gravel extraction. The site visit also identified some mature Jarrah (<i>Eucalyptus marginata</i>) and numerous mature Marri (<i>Corymbia calophylla</i>) trees with potential habitat value. The area has recognisable upper, middle and ground storey layers with Grass tree (<i>Xanthorrhoea preissii</i>) and Snottygobble (<i>Persoonia longifolia</i>) being identified.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	DEC site visit was undertaken on the 15th of June 2006 by DEC officers and a representative from the Shire of Nannup

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 proposal is for clearing of 2.8 hectares of remnant vegetation. The condition of the vegetation is good to very good (Keighery, 1994). The native vegetation type present within the proposed area to be cleared has 77.3% remaining indicating it to be of 'least concern' (>50%) (Mattiske Consulting 1998) (Department of Natural Resources and Environment, 2002). Aerial photography and site photographs of the area show the vegetation under application does not appear to have a higher diversity than the surrounding area. Therefore, the proposal is not likely to be at variance with this principle.
Methodology	Department of Natural Resources and Environment (2002) Keighery (1994) GIS Database: Mattiske Vegetation - CALM 24/03/98

(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 area proposed to be cleared lies within an intact remnant of approx 25ha, which is further surrounded by extensive state forest. It is unlikely that the proposed clearing of 2.8ha (approx 10%) would have a significant impact on native fauna species as this habitat type is well represented in the local area.

Methodology Site visit (2006)

(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 records of Declared Rare Flora (DRF) within close proximity of the areas under application. There is one species each of DRF and Priority 4 within a 10 km radius of the proposed clearing site.

The DRF is located within Harrington State Forest and is species *Daviesia elongata subsp elongata*.

The Priority 4 flora has 7 sites recorded within the Jarrahwood State Forest and is species *Grevillia drummondii*.

Neither the DRF or Priority 4 flora lie within the same vegetation type as the proposed clearing. Therefore it is unlikely that these species would be found within the proposed clearing area.

Methodology GIS Databases
- Declared Rare and Priority Flora List - CALM 01/07/05
- Environmentally Sensitive Areas - DOE 30/05/05
- Matiske Vegetation - CALM 24/03/98

(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 occurrences of Threatened Ecological Communities within a 10 km radius of the proposed clearing.

Methodology GIS Databases:
- Threatened Ecological Communities - CALM 15/07/03

(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 at variance to this Principle**
The vegetation under application is mapped as a component of Matiske vegetation classification Gale of which 77.3% (8,691ha) of the original extent remains. This vegetation type is therefore regarded as 'least concern' (>50%) in terms of biodiversity conservation (Department of Natural Resources and Environment 2002). The areas under application are mapped within the Jarrah Forest IBRA Region of which 58.7% of native vegetation remains (Shepherd et al 2001). Given the proposed clearing lies within well represented vegetation associations and the proposed clearing is not considered significant as a remnant of native vegetation in the surrounding area this proposal is not at variance to this principle.

Methodology Site visit (2006)
GIS Databases:
- Matiske Vegetation - CALM 24/03/98
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
Shepard et al (2001)
Department of Natural Resources and Environment (2002)

(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 watercourses or wetlands within the area proposed for clearing. A major river, St John Brook exists to the north-east (approximately 400m) of the area under application with a small tributary to the south (approximately 600m). There is a 25m downslope gradient from the proposed gravel pit to the St John Brook river creating a low risk of potential runoff entering the stream. However advice from DAFWA indicates that if surface drainage is managed and the area progressively rehabilitated affects from runoff should be minimised. A condition has been imposed to ensure revegetation of gravel extraction sites is undertaken. There is an approximate 200m vegetated buffer on the northern and eastern boundary, which should also assist in filtration,

should any runoff leave the property. No wetlands exist on the property or within the local area.

Methodology DAFWA (2006) (DEC TRIM ref DOC 3719)
GIS Databases:
-Hydrography, linear - DOE 01/02/04
-Topographic Contours, Statewide - DOLA 12/09/02

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

Comments Proposal is not likely to be at variance to this Principle

Mapping shows the landform of the proposed clearing area is a dissected plateau at low elevation with gently undulating low hilly relief and some swamps. The chief soils of the proposed clearing area are hard acidic yellow mottled soils containing small to very large amounts of ironstone gravels.

To reduce the likelihood of land degradation DAFWA advises that the area be managed for surface drainage and be progressively rehabilitated. In addition pit floors should be ripped and batters contoured prior to returning top soil. A condition has been imposed to ensure that revegetation of gravel extraction sites is undertaken along with specific pit floor and batter contour requirements.

Given the small size of the area under application in context with the regional surroundings, the soil types and advice from DAFWA it is unlikely that the proposed clearing will cause significant land degradation.

Methodology DAFWA (2006) (DEC TRIM ref DOC 3719)
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 Jarrahwood State Forest lies approx 1km to the north, south and west of the proposed clearing area. There is also an unnamed reserve vested with CALM lying 1.5km to the east of the proposed clearing. Clearing would result in an approximate 10% loss of the vegetated property and therefore unlikely to affect the surrounding reserves.

Methodology GIS Database:
- CALM Managed Lands and Water - CALM 01/07/05
- System 1 to 5 and 7 to 12 Areas - DEP 06/95

(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

With an average annual rainfall of 1000mm, depth to groundwater at the nearest monitoring site (7.8km to the south-west) being 117m and due to the small size of the proposed clearing area it is unlikely to cause deterioration in the quality of surface or underground water. In addition TDS (Total Dissolved Salts) levels at the monitoring site showed 203mg/L indicating very freshwater therefore the threat of saline intrusion is low. There is some risk of runoff to the nearby St John Brook River, however as the proposed clearing area is surrounded by vegetation classified as good to very good (Keighery, 1994) the threat to surface water quality is minimal.

Methodology GIS Databases:
- Isohyets - BOM 09/98
- WIN Groundwater Sites, Monitoring - DEWCP
- Hydrography, linear - DOE 01/02/04
- Groundwater Salinity, Statewide - 22/02/00
- Rainfall, Mean Annual - BOM 30/09/01
- Public Drinking Water Source Areas (PDWSAs) - DOE 01/06/04

(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

Due to the scale and nature of the proposed clearing it is unlikely to exacerbate flooding in the local area.

Methodology GIS Databases:
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

No submissions from the public have been received.

There is a Native Title Claim over the area under application. The Department of Environment and Conservation's advertising of the application in the West Australian newspaper constitutes legal notification of the native title representative body for the purpose of the future act procedures under the Native Title Act 1993. No response was received from the representative body.

There are no Aboriginal Sites of significance listed within the area under application.

There is no RIWI Act Licence or Works approval required for the proposed works.

Methodology

GIS Databases:

- Aboriginal Sites of Significance - DIA 28/02/03
- Native Title Claims - DLI 07/11/05
- RIWI Act, Groundwater Areas - WRC 13/06/00
- RIWI Act Surface Water Areas - WRC 18/10/02

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Extractive Industry	Mechanical Removal	2.8	Grant	The application to clear 2.8ha is not likely to be at variance to any of the clearing principles, subject to the revegetation conditions imposed within the permit.

5. References

- DAFWA Land degradation assessment report (2006). Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DEC TRIM ref DOC 3719
- 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.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.
- 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.
- Site Visit Report (2006), Department of Environment and Conservation (DEC), Western Australia. TRIM ref DOC2310

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)

