



1. Application details

1.1. Permit application details

Permit application No.: 2500/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: APT Projects Ltd

1.3. Property details

Property: LOT 2 ON DIAGRAM 57032 (LAKE JASPER 6260)
Local Government Area: Shire Of Nannup
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.3		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
3 - Medium forest; jarrah-marri	The application area is leased to the proponent to grow Eucalyptus globulus trees. The purpose for clearing is for gravel extraction. The area consists of Marri and Jarrah trees interspersed with logged trees.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Condition and pictures of the site were obtained through additional information supplied by the applicant.
23 - Low woodland; jarrah-banksia			
Mattiske:			
Scott Sd - Low open forest and low woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Agonis flexuosa with some Eucalyptus patens and Banksia spp. on low dunes to low woodland of Melaleuca preissiana-Banksia littoralis in interdune depressions in hyperhumid and perhumid zones.			
Jangardup JN - Open woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla on rises and low open woodland of Melaleuca preissiana-Banksia littoralis on depressions in hyperhumid and perhumid zones.			

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 application area is identified as Beard Vegetation associations 3 (Medium forest; jarrah-marri) and 23 (Low woodland; jarrah-banksia) (Shepherd, 2006). In addition, Mattiske Consulting (1998) has identified the area

under application as vegetation complexes Scott (Low open forest and low woodland of *Eucalyptus marginata* subsp. *marginata*-*Corymbia calophylla*-*Agonis flexuosa* with some *Eucalyptus patens* and *Banksia* spp. on low dunes to low woodland of *Melaleuca preissiana*-*Banksia littoralis* on inter-dune depressions in hyperhumid and perhumid zones) and Jangardup (Open woodland of *Eucalyptus marginata* subsp. *marginata*-*Corymbia calophylla* on rises and low open woodland of *Melaleuca preissiana*-*Banksia littoralis* on depressions in hyperhumid and perhumid zones). All vegetation complexes area above the 30% threshold level target identified by the EPA (2000).

The local area is well vegetated with approximately 95% native vegetation remaining in a 10km radius, of which approximately 85% is within official and unofficial CALM managed lands or waters.

Covering the applied area is a seasonally waterlogged flat Palusplain. This palusplain covers approximately a 5km radius. The area under application is considered to be a remnant native vegetated portion of an extensive palusplain (DEC, 2008).

Given the large size of the Palusplain and the small size of the application area, it is unlikely that the proposed clearing area comprises a high level of biological diversity.

Methodology Shepherd (2006)
EPA (2000)
DEC (2008)
Mattiske Consulting (1998)
GIS Database:
CALM Managed Lands and Waters - CALM 01/06/05
Donnelly 50cm Orthomosaic - DLI 04
NLWRA, Current Extent of Native Vegetation 30/01/2001
SAC Biodatasets, Fauna - accessed 02 July 08
Pre European Vegetation - DA 01/01
Mattiske Vegetation (01/03/1998)

(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 8 fauna species of conservation significance within the local area (10km radius) none of which occur closer than approximately 5.4km from the application area.

The local area is well vegetated with approximately 95% native vegetation remaining in a 10km radius, of which approximately 85% is within official and unofficial CALM managed lands or waters.

As the local area is highly vegetated and the area under application is small (0.3ha) the vegetation within the applied area is not considered to be significant habitat for fauna indigenous to Western Australia and is therefore not likely to be at variance to this principle.

Methodology GIS Database:
CALM Managed Lands and Waters - CALM 01/06/05
Donnelly 50cm Orthomosaic - DLI 04
NLWRA, Current Extent of Native Vegetation 30/01/2001
SAC Biodatasets, Fauna - accessed 02 July 08
Pre European Vegetation - DA 01/01
Mattiske Vegetation (01/03/1998)

(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 is one record of rare flora, *Meziella trifida*, approximately 8kms from the application area. The application area consists of swampy plains, chiefly leached sands with a thin peaty surface horizon. *M. trifida* occur in seasonally inundated clayey wetlands (Regional advice, 2008), a soil which differs markedly from the application area.

Given this, the application to clear 0.3 hectares of native vegetation is unlikely to be necessary for the continued existence of rare flora.

Methodology Regional advice (2008)
GIS Layer:
Sac biodata sets 040708

(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 records of threatened ecological communities within a 10km radius of the application area.

Given this, it is unlikely that the clearing of 0.3ha of native vegetation is necessary for the maintenance of a threatened ecological community.

Methodology GIS Layer:
Sac biodatasets 040708

(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 under application is located in the Warren Bioregion and the Shire of Nannup. The extent of vegetation remaining within these regions is 79.5% and 84.4% respectively (Shepherd et al. 2006). Furthermore, the remaining pre-European vegetation (3) and (23) are 69.4% and 75.3% respectively (Shepherd et al., 2006). Vegetation has not been extensively cleared within this region, and is higher than the desirable 30% threshold level target identified by the EPA (2000). Mattiske complexes that fall within the application area are all above the 30% threshold.

Given the high extent of vegetation remaining for all vegetation complexes, as well as the degraded (Keighery, 1994) condition of the vegetation under application it is unlikely that the application is at variance to this principle.

Methodology EPA (2000)
Shepherd et al. (2006)
GIS Database:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Pre European Vegetation, SAC Bio Dataset 040708
- Donnelly 50cm Orthomosaic - DLI04

(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 at variance to this Principle

There are two major drains 220m north, a minor perennial watercourse 96m east and a sumpland and floodplain approximately 1km from the application area. Covering the applied area is a seasonally waterlogged flat Palusplain. This palusplain covers approximately a 5km radius. The area under application is considered to be a remnant native vegetated portion of an extensive palusplain (DEC, 2008).

The existing native vegetation influences the hydrological regime of the wetland. Therefore, the proposed clearing may potentially alter the local hydrology (DEC, 2008).

Although the application area has been previously logged, it has not been done so in the past 10 years and regrowth has flourished within the area.

Given the above, the proposal is at variance to this principle.

Methodology Shepherd (2006)
DEC (2008)
GIS Layer:
- Pre European Vegetation - DA 01/01
- Clearing Regulations, Environmentally Sensitive Areas 30 May 2005
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC 11/04/07
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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 topography of the region is relatively flat with an elevation rising from 30-35 AHD, receiving a mean annual rainfall of 1200mm. Groundwater salinity is low mapped at less than 500 TDS (Total Dissolved Solids).

There is no known risk of Acid Sulfate Soils (ASS) occurring within the proposed clearing area. Chief soils on the swampy plains are leached sands some with a thin peaty surface horizon (Northcote et al., 1960).

The purpose of the application is for gravel extraction and is for 0.3ha, therefore, given the small size of the application area and that the correct management of the clearing site is sustained during works, wind erosion should be minimal.

Given the small area proposed to be cleared relative to the above information, the proposed clearing is unlikely to cause appreciated land degradation in the form of wind or water erosion, water logging or salinisation.

Methodology Northcote et al., (1960)
GIS Layer:
- Acid Sulfate Soil risk, Lower South West 2006-08-07
- Groundwater Salinity, Statewide - DoW 13/07/06
- Topography contours, statewide - DOLA 12/09/02
- Rainfall, Mean Annual - BOM 30/09/01

(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**
There are numerous official and unofficial state forests and register of National Estate areas between 130m and 2.3km from the application area. The area under application consists of predominately vegetation in good condition interspersed with previously logged trees. Given the small application area and that adjacent areas are used as Eucalyptus globulus plantations, it is unlikely that the clearing of vegetation is likely to have an impact on the environmental values of any nearby conservation areas.

Methodology GIS Layer:
- CALM Managed Lands and Waters - CALM 01/06/05
- Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02
- System 1 to 5 and 7 to 12 areas - DEC 11/7/06

(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 may be at variance to this Principle**
There are two major drains 220m north, a minor perennial watercourse 96m east and a sumpland and floodplain approximately 1km from the application area. Covering the applied area is a seasonally waterlogged flat Palusplain. This palusplain covers approximately a 5km radius. The existing native vegetation influences the hydrological regime of the wetland. Therefore, the proposed clearing may potentially alter the local hydrology (DEC, 2008).

Groundwater salinity is low, mapped at less than 500mg/L TDS (Total Dissolved Solids). As the application is for gravel extraction, it may alter local hydrology and potentially impact surface water and groundwater flows.

Given the above, the application may be at variance to this principle.

Methodology DEC (2008)
GIS Layers:
- Clearing Regulations, Environmentally Sensitive Areas 30 May 2005
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC 11/04/07
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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**
The hydrogeology of the area is predominately sedimentary rocks - Extensive and deep aquifers, with free draining soils. Given the small scale of clearing, it is unlikely it will cause or exacerbate flooding within the local area.

Methodology GIS Layer:
- Hydrogeology, statewide - DOW 13/07/06

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

Comments
The purpose of the application is for gravel extraction. The extracted gravel is for on site road building and will not be used or sold off site. Given this a extractive industry licence is not required from the Shire of Nannup.

There are two environmental impact assessments over the application area (CRN153511 and CRN158132). They have not been assessed.

There is a Native Title Claim over the application area. It is for the South West Boojarah Peoples. As the area under application is privately owned Native Title is extinguished.

Methodology GIS Layer:
- Environmental Impact Assessments - EPA 22/2/07
- Native Title Claims - LA 2/5/07

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 at variance to Principle (f), may be at variance to Principle (i) and is not likely to be at variance to the remaining clearing Principles.

Gravel extraction for road building on above property.

5. References

- Department of Environment and Conservation (2008) Wetlands Advice. Species and Communities Branch. DEC TRIM Ref: DOC58967.
- 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.
- 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.
- 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.
- Regional Advice (2008). Department of Environment and Conservation. DEC TRIM Ref: DOC57096
- Shepherd, D.P. (2006). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

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)

