



1. Application details

1.1. Permit application details

Permit application No.: 329/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: PMR Quarries P/L

1.3. Property details

Property: LOT 501 ON DIAGRAM 65347 (Lot No. 501 MANDOGALUP MANDOGALUP 6167)

Local Government Area: Town Of Kwinana

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.75		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
Vegetation Description Beard vegetation association - 1001: Medium very sparse woodland; jarrah, with low woodland; banksia & casuarina Heddlle Vegetation Complex -Bassendean Complex - Central & South: Vegetation ranges from woodland of <i>E. marginata</i> - <i>C. fraseriana</i> - <i>Banksia</i> spp. to low woodland of <i>Melaleuca species</i> , and sedgeland on the moister sites. This area includes the transition of <i>E. marginata</i> to <i>E. todtiana</i> in the vicinity of Perth.	The proposal includes the clearing of 0.75ha of all native vegetation for extractive industry purposes. The vegetation under application is woodland of <i>Eucalyptus marginata</i> , <i>Banksia sp.</i> and <i>Allocasuarina sp.</i> over shrubland of sedges, <i>Xanthorrhoea pressii</i> and dense weed including <i>Gladiolus caryophyllaceus</i> .	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Vegetation clearing description obtained from a site inspection conducted on 5th of September 2005.

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 narrow strip of vegetation located in an area largely cleared and used for agriculture namely market gardens. The area is within 1km of a large conservation reserve and two Bush Forever sites are also located within the local area.

The vegetation under application is in degraded to good condition, with the size and shape of the area likely to result in further degradation due to edge effects from surrounding activities. The area under application is therefore not likely to be sustainable or have a higher level of biodiversity than the nearby reserves.

Methodology Site visit 5/9/05
GIS Databases:

(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 4 Priority Fauna and 1 Threatened Fauna species recorded within the local area (5km radius of the application), the nearest of which is located 1.8km to the north within Harry Waring Marsupial Reserve.

Although fauna has been recorded in the local area, the likelihood of finding the listed species within the isolated narrow strip of vegetation under application is considered low. The area under application is also unlikely to represent significant habitat for fauna considering the significant habitat present in nearby conservation reserves.

Methodology Site visit 5/9/05
GIS Databases:
CALM Managed Lands and Waters - CALM 1/07/05
Threatened Fauna - CALM 30/9/05

(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

Within the local area (5km radius of the application) there are 4 known occurrences of Declared Rare Flora (DRF) and 10 known occurrences of Priority Flora, the closest of which is located approximately 2km to the northwest.

One population of Priority Flora *Dodonaea hackettiana* and the populations of Declared Rare Flora (DRF), *Drakea elastica* and *Caladenia huegelii* are found on the same soil association as the area under application. However, no Priority Flora or DRF were observed during the site visit. Given the degraded nature and level of disturbance within the area under application the vegetation would be unlikely to support the above DRF is therefore not likely to be considered necessary for the continued existence of rare flora.
not likely to be present.

Methodology Site visit 5/9/05
GIS Databases:
Declared Rare and Priority Flora List - CALM 01/07/05
Soils, Statewide - DA 11/99

(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 (TEC) within the local area and the floristic community identified during the site inspection was considered unlikely to represent TECs.

Methodology GIS Database: Threatened Ecological Communities - CALM 12/4/05
Site Visit 5/9/05

(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 vegetation under application is defined by Heddle et al. (1980) as 'Bassendean Complex - Central and South' and is also classified as vegetation association 1001 (Shepherd et al. 2001). These associations have 27% and 27.6% respectively of pre-European extent remaining and are considered to be vulnerable (Department of Natural Resources and Environment 2002).

The State Government is committed to the National Objective Targets for Biodiversity Conservation, which includes targets that prevent clearance of ecological communities with an representation below 30% of the present pre-1750 extent (Department of Natural Resources and Environment 2002; EPA 2003). Beyond this value, species extinction is believed to occur at an exponential rate and any further clearing may have irreversible consequences for the conservation of biodiversity and is therefore not supported.

However, the area under application consists of a narrow strip of vegetation that is considered to be subject to edge effects, and as a result the current vegetation condition is not likely to be sustainable in the long term, even with active management.

Methodology Department of Natural Resources and Environment 2002

EPA 2003
Shepherd et al. 2001
GIS Databases:
Hedde Vegetation Complexes - DEP 21/06/95
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 likely to be at variance to this Principle

A number of Conservation Category Wetlands (CCW) are located within the local area of the application, the closest being approximately 1.3km to the northeast. These wetlands support a high level of ecological attributes and functions and are the highest priority wetlands for protection (Water and Rivers Commission 2001).

The Peel Main Drain is also located 1.4km to the southeast of the area under application.

Given the distance to the nearest CCW, the removal of vegetation as proposed is not considered likely to have impacts on vegetation associated with a watercourse or wetland.

Methodology Water and Rivers Commission 2001
GIS Databases:
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DOE 15/9/04
Hydrography, linear (hierarchy) - DOE 13/4/05

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

Comments Proposal may be at variance to this Principle

The area under application consists is a Spearwood dune ridges with deep siliceous yellow brown sands or pale sands.

Although there is a low risk of salinity and acid sulphate soils in the area under application, the soil type has a susceptibility to erosion and the removal of vegetation will further expose soils to the elements. Erosion therefore may occur as a result of the removal of vegetation as proposed.

Although there is the potential for erosion to result from the clearing of vegetation under application, this will be managed under the Excavation and Rehabilitation Management Plan and the Extractive Industry Licence, which contain provisions for dust control and vegetation rehabilitation. The clearing of vegetation as proposed is therefore not likely to cause appreciable land degradation.

Methodology Agmaps 2005
GIS Databases:
Acid Sulfate Soil Risk Map, SCP - DOE 04/11/04
Salinity Risk LM 25m - DOLA 00
Soils, Statewide - DA 11/99
Topographic Contours, Statewide - DOLA 12/09/02

(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

A number of Bush Forever sites are located within the local area of the application, the closest of which are located 800m west and 900m north. The area to the north is also a large marsupial reserve. The land between the area under application and the conservation reserves is used for agricultural and industrial purposes.

Given the surrounding land uses, and that the area under application is a narrow strip of remnant vegetation, the clearing as proposed is not likely to impact the environmental values of any nearby conservation area.

The benchmark of 15% representation in conservation reserves (Janis Forests Criteria 1997) has not been met for Beard vegetation type 1001 and Hedde vegetation association - Bassendean Complex - Central and South. However, the area under application consists of a narrow strip of vegetation that is considered to be subject to edge effects, and as a result the current vegetation condition is not likely to be sustainable in the long term, even with active management. Therefore the vegetation is not likely to remain representative of the vegetation type and is considered to be of limited conservation value.

Methodology GIS Databases:
Bushforever - MFP 07/01
CALM Managed Lands and Waters - CALM 1/07/05

(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 under application has a low risk of salinity and acid sulphate soils and is not located within a Public Drinking Water Source Area (PDWSA). The nearest waterbody is a Resource Enhancement Wetland surrounding an EPP Lake, which is located approximately 700m to the west.

The area under application is located on the opposite side of the current excavation pit in relation to the nearest waterbody. Any water run-off is not considered likely to be able to drain into the wetland due to the slope of the pit and the distance to the area under application. Provisions for water erosion control are also included in the Excavation and Rehabilitation Management Plan.

Given the location of the area under application and the proposed management practices, the clearing as proposed is not likely to cause deterioration in the quality of surface or ground water.

Methodology GIS Databases:
Acid Sulfate Soil Risk Map, SCP - DOE 04/11/04
EPP, Lakes - DEP 1/12/92
Public Drinking Water Source Areas (PDWSAs) - DOE 07/02/06
Salinity Risk LM 25m - DOLA 00
Topographic Contours, Statewide - DOLA 12/09/02

(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

Given the small amount of vegetation to be cleared, the relief of the area, and the high infiltration rates associated with the soil type, the clearing of vegetation as proposed is not likely to cause or exacerbate the incidence of flooding.

Methodology GIS Databases:
Soils, Statewide - DA 11/99
Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

In a submission received on 29 December 2004 the Town of Kwinana reports that planning approval needs to be obtained from both the Council and the Western Australian Planning Commission prior to the commencement of any works. The Town of Kwinana (2004) expressed the view that 'the proposal should not be detrimental to the surrounding environment provided the extraction activity is not long term' and that the landform at the conclusion of the mining activity should not preclude urban potential.

On 27 July 2005 the Town of Kwinana recommended that the WAPC that the application to conduct Extractive Industry (Sand Mining) at Lot 501 Mandogalup Road be approved subject to conditions.

The Town of Kwinana has issued an Extractive Industry Licence to PMR Quarries Pty Ltd.

Lot 501 Mandogalup Road is part of a Native Title Claim however, since it is privately owned the Native Title has been extinguished under the Native Title Act. Therefore the clearing as proposed should not fall under the future acts process of the Native Title Act 1993.

Part V licence for screening may be required if screening of more than 50 000 tonnes pa of sand is proposed.

Methodology No other statutory approvals are required for this proposal.
Town of Kwinana 2004
Town of Kwinana 2005
GIS Database:
Native Title Claims - DLI 7/11/05

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Extractive Industry	Mechanical Removal	0.75	Grant	<p>Site visit of the area confirmed that part of the original 1.5 hecatres had been cleared. As such the area has been amended to 0.75 following the applicant request.</p> <p>The assessable criteria have been addressed and the amended proposal may be at variance to principle (g).</p> <p>Dust management conditions placed on an extractive industry licence that is issued by the local council, should adequately address land degradation issues.</p> <p>The assessing officer therefore recommends that the permit be granted.</p>

5. References

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 (2003) Guidance for the Assessment of Environmental Factors -level of assessment of proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region. Report by the EPA under the Environmental Protection Act 1986. No 10 WA.

Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

JANIS Forests Criteria (1997) Nationally agreed criteria for the establishment of a comprehensive, Adequate and Representative reserve System for Forests in Australia. A report by the Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee. Regional Forests Agreement process. Commonwealth of Australia, Canberra.

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.

State of Western Australia (2005) AgMaps Land Manager CD Rom.

Town of Kwinana (2004) Submission to DoE.

Town of Kwinana (2005) Report on Extractive Industry (Sand Mining): Lots 501 and Pt615 Mandogalup Road, Mandogalup.

Water and Rivers Commission (2001) Water and Rivers Commission Position Statement: Wetlands, Water and Rivers Commission.

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)