



1. Application details

1.1. Permit application details

Permit application No.: 2553/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Boral Resources (WA) Limited

1.3. Property details

Property: LOT 104 ON PLAN 18335 (House No. 543 COBBLER POOL MORANGUP 6083)
 Local Government Area: Shire Of Toodyay
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
20		Mechanical Removal	Extractive Industry
		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
Beard vegetation associations: 4 - Medium woodland; marri & wandoo 3003 - Medium forest; jarrah and marri on laterite with wandoo in valleys, sandy swamps with tea-tree and banksia. (SAC Bio Datasets 26/08/2008; Shepherd, 2006)	The proposal is to clear approximately 20 hectares of native vegetation within 37 hectares on Lot 104 (472 hectare property) for the purposes of gravel extraction and a hardstand area. The northern area under application, which comprises the existing quarry, consists of approximately 16 hectares of vegetation in completely degraded condition. The vegetation under application includes sparse regrowth of Eucalyptus wandoo, E. marginata, E. accedens, Corymbia calophylla, Allocasuarina huegelii, Acacia acuminata and A. pulchella.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The condition of the native vegetation under application was sourced from the site inspection (DEC, 2008).
Mattiske Vegetation Complex: Murray 2 - Open forest of Eucalyptus marginata subsp. thalassica-Corymbia calophylla-Eucalyptus patens and woodland of Eucalyptus wandoo with some Eucalyptus accedens on valley slopes to woodland of Eucalyptus rudis-Melaleuca raphiophylla on the valley floors in semiarid and arid zones. (Mattiske Consulting 1998)			
Heddle Vegetation Complex: Murray and Bindoon Complex in Low to Medium Rainfall - No description available. (Heddle et al 1980)			

As Above The southern areas under Good: Structure As Above

Methodology References:
 - DEC (2008)
 - DEC (2008a)
 GIS databases:
 - DEC Managed Land and Waters
 - SAC Bio Datasets accessed 17/07/2008

(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 (~10km radius) there is one known population of rare flora, being *Thelymitra stellata*, which occurs approximately 8km from the areas under application. *Thelymitra stellata* occurs on sand, gravel and lateritic loam (WA Herbarium, 1998). The vegetation complexes and soil mapping for the areas under application differs to that of *Thelymitra stellata*.

Given the different soil and vegetation complex mapping, and distance to the closest population of rare flora; the areas under application are not considered likely to include rare flora.

Methodology Reference:
 - West Australian Herbarium (1998)
 GIS databases:
 - Heddl Vegetation Complexes
 - Matiske Vegetation
 - Soils Statewide
 - SAC Bio Datasets accessed 17/07/2008

(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 Threatened Ecological Communities (TEC) within the local area (~10km radius). The closest known occurrence of a TEC is floristic community type 20b: Eastern *Banksia attenuata* and/or *Eucalyptus marginata* woodlands, located 23km from the areas under application.

Given the areas proposed for clearing are located on the Darling Plateau and not on the Swan Coastal Plain, the vegetation under application is not likely to comprise or is necessary for the maintenance of a threatened ecological community.

Methodology GIS database:
 - SAC Bio Datasets accessed 17/07/2008

(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 areas under application are part of the Jarrah Forest Bioregion, which has a current pre-European representation of 53.8% (Shepherd 2006). The vegetation under application is identified as Matiske: Murray Complex 2 and Beard: 4 and 3003 of which there is 74.2%, 23.3% and 61.3% of pre-European vegetation remaining respectively (Matiske Consulting, 1998; Shepherd, 2006).

The State Government is committed to the National Objectives Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-1750 (Commonwealth of Australia, 2001). The Beard vegetation type (4) is below the recommended minimum of 30% representation.

The majority of the vegetation under application is in completely degraded condition and the vegetation in the local area is well represented. Therefore the areas under application are not considered likely to be significant as remnants of native vegetation.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregion*				
Jarrah Forest	1,025,022	241,500	53.8	4.4
Shire of Toodyay**	173,440	88,082	50.8	NA
Local Area (~10km radius)	~ 31,400	~ 25,548	~81	NA
Beard vegetation types*				

of remnant vegetation, is located adjacent to the west boundary of Lot 104.

Given that Avon Valley National Park is a large remnant of native vegetation and that a majority of the vegetation under application is in completely degraded condition, it is not considered likely that the clearing as proposed would have an impact on the environmental values of the adjacent conservation area.

Methodology GIS databases:
- Systems 6 Conservation Reserves
- DEC Managed Land 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 may be at variance to this Principle

The Avon River is located ~130m north of the areas under application. There are no mapped wetlands within the local area (~10km radius).

There are no Public Drinking Water Sources Areas and there is a low salinity risk in the northern area under application. Given that a majority of the vegetation under application is in completely degraded condition and the low risk of salinity it is not considered likely that the clearing as proposed would result in the deterioration in the quality of ground water through salinity.

The main land degradation risk associated with the clearing as proposed is water erosion. The northern area under application is located upslope from the Avon River at a gradient of 18% which is considered to be a moderate slope (Wells 1988). Therefore it is considered that the clearing as proposed may cause water erosion resulting in sedimentation and deterioration in surface water quality.

Methodology GIS databases:
- Public Drinking Water Source Areas
- Hydrography, linear hierarchy
- Hydrography, linear
- Soils Statewide
- Salinity Risk Mapping

(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

There are no wetlands or watercourses mapped within the areas under application with the closest water bodies being the Avon River, located ~130m north, and as such it is not considered that the clearing as proposed is likely to cause or increase the incidence or intensity of localised flooding. Therefore, this clearing proposal is not likely to be at variance to this Principle.

Methodology GIS database:
- Hydrography, linear hierarchy

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

Comments

The areas under application are within the Proclaimed Surface Water Area of Avon River Catchment. Therefore any abstraction of surface water above the riparian rights (>1,500kL) would require a licence. This application is for the extraction of clay and is not associated with surface water extraction.

There are four Aboriginal sites of significance within the area under application. DEC will advise the proponent of their responsibilities under the Aboriginal Heritage Act 1972.

The proponent (Boral, 2008) has provided a copy of the Extractive Industry Licence and Planning Consent from the Shire of Toodyay. The Shire of Toodyay has no objections to the positioning of the stockpile area (Shire of Toodyay, 2008).

Methodology Lot 104 on Plan 18335 is freehold land. Lot 104 is zoned 'rural 5' under the local Town Planning Scheme.
References:
- Boral (2008)
- Shire of Toodyay (2008)
GIS Databases:
- Aboriginal sites of significance
- Cadastre
- RIWI Act, Areas
- Town Planning Scheme Zones