



1. Application details

1.1. Permit application details

Permit application No.: 457/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Luzenac Australia Pty Ltd

1.3. Property details

Property: M70/101
M70/918
Local Government Area: Shire Of Three Springs
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.7		Mechanical Removal	Mining

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 352: Medium woodland; York gum (Hopkins et al. 2001, Shepherd et al. 2001).	Native flora species affected by this application include <i>Ptilotus macrocephalus</i> , <i>P. obovatus</i> , <i>Enchylaena tomentosum</i> , <i>Maireana brevifolia</i> , <i>Rhagodia drummondii</i> , <i>Alyogyne huegii</i> , <i>Acacia acuarria</i> , <i>A. adnata</i> , <i>A. acuminata</i> subsp. <i>acuminata</i> , <i>A. anthochaera</i> , <i>A. assimilis</i> subsp. <i>assimilis</i> , <i>A. coolgardiensis</i> subsp. <i>effusa</i> and <i>Melaleuca hamulosa</i> (Borger, J., 2004).	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Observed during site visit: the inspection took approximately two hours and was carried out by vehicle and on foot. Mr Checker noted the extensive invasion of weed species and the sparse nature of regrowth <i>Acacia</i> species. A number of photographs were taken of the site (TRIM Ref: GD 354). A detailed flora survey was conducted by a botanical consultant and it was found that, 'the area surveyed covers 4.7ha of disturbed land, with stockpiles and cap-rock. Approximately one third of the area has 95% to 100% groundcover comprising <i>Maireana brevifolia</i> , <i>Rhagodia drummondii</i> and several alien species, the dominant species being <i>Avena fatua</i> (Wild Oats) and <i>Hordeum leporinum</i> (Barley grass). Four <i>Acacia</i> shrubs were found within this area, one of which was very affected by insect damage. The remaining shrubs were growing on stockpiles of rock and gravel. Ground cover over much of the remaining area ranged from bare to approximately 20% (Borger, J., 2004).'

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 at variance to this Principle**
The area under application falls within the Avon Wheatbelt Bioregion, recognised as hotspot of biodiversity. The proposed clearing however affects an area that has been disturbed by farming and mining activities for many years. The area has been used to stockpile gravel and cap rock and has been used for this purpose for the past ten years (Luzenac, 2004). This site contains regrowth *Maireana*, *Rhagodia* and *Acacia* species with extensive weed invasion. The land has already been identified by the Department of Industry and Resources as requiring rehabilitation, therefore the proposed clearing is not at variance to this Principle.

Methodology GIS Databases: Interim Biogeographic Regionalisation of Australia-EA 18/10/00.
Borger, J., 2004.
Luzenac Australia, 2004.

(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 at variance to this Principle

The area under application has been disturbed by farming and mining activities for many years. The site has been used to stockpile gravel and cap rock and has been used for this purpose for the past ten years (Luzenac, 2004). This site contains regrowth Maireana, Rhagodia and Acacia species with extensive weed invasion. The completely degraded nature of this vegetation suggests that it would not provide a significant habitat for specially protected fauna species.

Methodology Luzenac, 2004.
 Borger, J., 2004.
 CALM's Threatened and Priority Fauna Database [The comprehensiveness of the database is dependent on the amount of survey carried out in the area and does not necessarily represent a comprehensive listing (CALM, 2005)].

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, significant flora.

Comments Proposal is not at variance to this Principle

A detailed flora survey was conducted in December 2004 and the following native flora species were recorded: Ptilotus macrocephalus, P. obovatus, Enchylaena tomentosum, Maireana brevifolia, Rhagodia drummondii, Alyogyne huegii, Acacia acuaria, A. adnata, A. acuminata subsp. acuminata, A. anthochaera, A. assimilis subsp. assimilis, A. coolgardiensis subsp. effusa and Melaleuca hamulosa (Borger, J., 2004). None of these species are Declared Rare Flora (DRF) or Priority Species, therefore the proposed clearing is not at variance to this Principle.

Methodology GIS Databases: Declared Rare and Priority Flora list - CALM 13/08/03.
 Site visit, DoE Officer, 2004.
 Florabase, 2005.
 CALM's Threatened and Priority Flora Database [The comprehensiveness of the database is dependent on the amount of survey carried out in the area and does not necessarily represent a comprehensive listing (CALM, 2005)].

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significant ecological community.

Comments Proposal is not at variance to this Principle

The Threatened Ecological Community (TEC) data base did not include the mining tenements affected by this application, therefore this proposal is not at variance to this Principle.

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 at variance to this Principle

The Avon Wheatbelt Bioregion, the Shire of Three Springs and the Beard vegetation association 352 all have less than 30% of the native vegetation remaining. A vulnerable conservation status as indicated by the percentage remaining, render this clearing proposal at variance to this Principle.

	Pre-European Reserves/CALM-area (ha)	Current extent (ha)	Remaining %*	Conservation status**	managed land,
IBRA Bioregion -					
Avon Wheatbelt	8,967,527	924,828	10.3	Vulnerable	
Shire - Three Springs	258,882	51,008	19.7	Vulnerable	
Beard veg type - 352	874,652	133,255	15.2	Vulnerable	8.5

* (Shepherd et al. 2001)

** (Department of Natural Resources and Environment 2002)

Methodology GIS Databases: Interim Biogeographic Regionalisation of Australia - EA 18/10/00, Pre-European Vegetation - DA 01/01, Local Government Authorities - DLI 08/07/04.
 Shepherd 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 at variance to this Principle

The area under application falls within the Yarramonger catchment and contains no watercourses or wetlands of environmental significance. A non perennial lake (511m away), an earth dam (785m away) and two minor non perennial watercourses (730 and 800m away) can be found within the vicinity but are not contained within the proposed area to be cleared. The proposed clearing therefore, is not at variance to this Principle.

Methodology GIS Databases: Hydrography, linear - DoE 01/02/04, Hydrographic Catchments (Basins and Catchments) - DoE 03/04/03.

(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 area under application is relatively small and the remaining vegetation is sparse and degraded regrowth. Therefore, the proposal to clear 4.7 hectares is unlikely to cause appreciable land degradation issues on or off site.

Methodology Luzenace, 2004.
Borger, J., 2004.

(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

The mining tenements affected by this application do not contain, provide a buffer for, or contribute to an ecological linkage to a conservation area. This proposal is therefore not at variance to this Principle.

Methodology GIS Databases - CALM Regional Parks - CALM 12/04/02, WRC Estate - WRC 05/99, CALM Managed Lands & Waters - CALM 01/06/04, Proposed National Parks FMP-CALM 19/03/03, Register of National Estate - EA 28/01/03

(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 at variance to this Principle

The area under application does not include any Public Drinking Water Source Areas (PDWSA) or PDWSA Protection Zones. In addition, the area of vegetation proposed to be cleared is relatively small and the remaining vegetation is sparse and degraded regrowth. Therefore, the proposal to clear 4.7 hectares is unlikely to degrade water quality.

Methodology GIS Databases - Current WIN data sets, PDWSA Protection Zones - DOE 07/01/04, Public Drinking Water Sources (PDWSAs) - DOE 29/11/04, Hydrographic Catchments - Catchments - DOE 03/04/03.

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.

Comments Proposal is not at variance to this Principle

The area under application is relatively small and the remaining vegetation is sparse and degraded regrowth. The proposed clearing of 4.7 hectares is therefore unlikely to lead to an incremental increase in peak flood height or duration.

Methodology Luzenac, 2004.
Borger, J., 2004.
GIS Databases - Rainfall, Mean Annual - BOM 30/09/01

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

Comments

The Shire of Three Springs has not indicated that there are any planning requirements/approvals that would affect the clearing.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mining	Mechanical	4.7	Grant	The assessable criteria have been addressed and one objection was raised. The

proposal to clear 4.7 hectares of vegetation to extend a waste dump is at variance to Principle e). The vegetation under application lies in an extensively cleared area however the site has been disturbed by farming and mining activities for many years. The area has been used to stockpile gravel and cap rock and has been used for this purpose for the past ten years (Luzenac, 2004). This site contains regrowth *Maireana*, *Rhagodia* and *Acacia* species with extensive weed invasion and the land has already been identified by the Department of Industry and Resources as requiring rehabilitation. The assessing officer therefore recommends that the clearing permit be granted.

Advice to applicant: control of *Avena fatua* (Wild Oats), *Hordeum leporinum* (Barley Grass), *Lactuca serriola* (Prickly Lettuce), *Echium plantagineum* (Patterson's Curse), *Salsola kali* (Roly Poly) and *Mesembryanthemum crystallinum* (Ice plant) will need to be addressed to ensure success of future rehabilitation.

5. References

- Borger, J., 2004. Vegetation survey of area proposed for waste dump extension for Luzenac Australia Pty Ltd Three Springs talc operation. Three Springs, Western Australia.
- 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.
- Luzenac Australia Pty Ltd, 2004. Luzenac Australia application for clearing permit. Three Springs, 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.