



1. Application details

1.1. Permit application details

Permit application No.: 936/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Tectonic Resources NL

1.3. Property details

Property: ROAD RESERVE (RAVENSTHORPE 6346)
LOT 62 ON PLAN 224155 (RAVENSTHORPE 6346)
UNALLOCATED CROWN LAND (JERDACUTTUP 6346)
Local Government Area: Shire Of Ravensthorpe
Colloquial name: Portion A & B

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.08		Mechanical Removal	Road construction or maintenance

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 (Portion A) 516 : Shrubland; mallee scrub, black marlock (Hopkins et al., 2001; Shepherd et al., 2001)	Two areas are proposed to be cleared under the current application: - Portion A constitutes clearing of 0.05 ha of road reserve required to connect the haul road from the Trilogy Deposit to the Ravensthorpe- Hopetoun Road - Portion B constitutes clearing of 0.03 ha of road reserved required to connect the haul road between Oldfield Location 62 with the South Coast Highway.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the vegetation in Portions A and B was determined through review of the Declared Rare & Priority Flora Survey conducted in October 2005 (Craig 2005). - Portion A is situated adjacent to Ravensthorpe- Hopetoun Road in the road reserve and is mostly in excellent condition. - Portion B is situated immediately adjacent to South Coast Hwy in road reserve and is considered degraded by weed invasion and as a result likely to be in poor condition.
	A Declared Rare and Priority Flora survey was undertaken of the areas under the application by Dr GF Craig on the 13 September and 7 October 2005: - The vegetation of Portion A is Very Open Mallee (Eucalyptus pleurocarpa, E leptocalyx, E phaenophylla & E suggrandis) and Very Open Low Heath (<1m) and Sedge. A high diversity of proteaceous and leguminous shrubs are present, including Dryandra cirsioides. - The vegetation of Portion B is highly degraded, the disturbance of which has been exacerbated by wildfire in February 2003.		

This section of the road reserve is infested with at least 15 species of weeds. Shrubs are present, including *Senna artemisioides* and *Acacia cyclops*.

No Declared Rare Flora or Priority Flora were associated with this portion which is described as 'weed free' (Craig 2005).

Beard vegetation association (Portion B) 352 : Medium woodland; York gum (Hopkins et al., 2001; Shepherd et al., 2001)

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)

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 will involve clearing of two very small (0.03 and 0.05ha) disparate areas in and immediately adjacent to road reserves, and adjoining cleared farmland. The vegetation of the two areas (Portions A and B) consists of two vegetation types, with the vegetation of Portion B being in a highly degraded state. While the vegetation of Portion A has a high diversity of proteaceous and leguminous shrubs, the area to be cleared is very small in size (0.03ha), and therefore the proposal is not likely to be at variance to this principle.

No Declared Rare Flora or Priority flora are known to occur within the application areas (Craig, 2005; CALM, 2005; GIS database)

Methodology Craig 2005

GIS databases:

- Declared Rare and Priority Flora List - CALM 01/07/05
- Ravensthorpe 1.4m Orthomosaic - DLI 02
- Pre - European Vegetation - DA 01/01

(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**

Vegetation associated with Portion A of the proposal to clear is described as mostly in excellent condition with no weeds present (Craig, 2005). However, due to the limited spatial extent of the proposed clearing and its location in the Ravensthorpe-Hopetoun Road reserve adjacent to cleared farmland, the proposal to clear is unlikely to be at variance to this principle.

With regard to Portion B of the application area, vegetation was noted by (Craig, 2005) as highly degraded by weed invasion. Due to its location within the South Coast Highway road reserve adjacent to cleared farmland, and the limited spatial extent of the area proposed to be cleared, the proposal is unlikely to be at variance to this principle.

Methodology Craig 2005

GIS databases:

Ravensthorpe 1.4m Orthomosaic - DLI 02

(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**

No Declared Rare or Priority Flora is known to be located in either area proposed to be cleared (GIS databases). The Declared Rare and Priority Flora surveys undertaken on the 13 September and 7 October 2005 at the two sites under this application found reported that no Declared Rare or Priority Flora were found (Craig, 2005).

CALM (2005) advises that due to lack of Declared Rare Flora and Priority Flora being present in vegetation to be cleared and the limited spatial extent of clearing, the construction of these sections of haul road are unlikely

to have a significant environmental impact.

Methodology CALM 2005
Craig 2005

GIS database:
Declared Rare and Priority Flora List -CALM 01/07/05

(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) in the relatively small application areas concerned. The nearest known TEC is approximately 20 km from the application area (GIS Database). Therefore this proposal is unlikely to be at variance to this clearing principal.

Methodology GIS databases:
- Threatened Ecological Communities-CALM 12/04/05

(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 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-European settlement (Department of Natural Resources and Environment, 2002; EPA, 2000).

The vegetation association for Portion A (516) mapped by Beard reflects that described in the survey undertaken by Craig (2005). The benchmark of 15% representation of vegetation association 516 in conservation reserves (JANIS Forests Criteria, 1997) has not been met. Additionally, as 25.9% of the pre-European extent of this association remains, it is therefore 'vulnerable' with respect to biodiversity conservation (Department of Natural Resources and Environment, 2002). However, the area to be cleared is 0.03 ha, which constitutes 0.00001% of the pre-European extent. Clearing of 0.03ha of vegetation association 516 is not likely to be significant as a remnant of native vegetation.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation Status**	% in IUCN Class I-IV reserves
IBRA Bioregion - Esperance Plains		2,909,675*	1,534,396*	52.7%	Least concern
Shire of Ravensthorpe Beard vegetation association - 516	No information available 285,547	73,974	25.9%	Vulnerable*	9.2%

* Shepherd et al. (2001)

** Department of Natural Resources and Environment (2002)

The vegetation association for Portion B (352) mapped by Beard is significantly different from the highly degraded vegetation described in the survey of this site. A comparison like that given for Portion A is therefore meaningless with respect to Portion B. Due to the highly degraded nature of the vegetation, however, it can be concluded that the vegetation of Portion B is not significant as a remnant of native vegetation.

Methodology Craig 2005
Department of Natural Resources and Environment 2002
EPA 2000
Hopkins et al. 2001
JANIS Forests Criteria 1997
Shepherd et al. 2001

GIS databases:
- Pre- European Vegetation - DA 01/01
- Interim Biogeographic Regionalisation of Australia (subregions) - EA 18/10/00

(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 areas proposed to be cleared (GIS database). Consequently,

the clearing under this application will not impact upon any creek systems or watercourses (GIS Database), and is not likely to be at variance to this principle.

Methodology GIS databases:
- Hydrography, Linear - DOE 01/02/04
- Rivers, 1M-GA 01/06/00
- South Coast Significant Wetlands - DOE 4/8/03
- Topography Contour, 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**
Considering the limited spatial extent of the proposed areas to be cleared, it is unlikely that the application is at variance to this principle.

Methodology

(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 Kundip Nature Reserve situated 2.3 km north of Portion A is the closest CALM managed conservation area and with regard to Portion B there is an un-named CALM managed conservation area situated 5.2 km to the south-east (GIS database). Considering the limited scale of the proposed clearing it is unlikely that vegetation associated with the proposal would be significant in providing an ecological linkage with regional conservation areas.

CALM (2005) have advised that due to the limited spatial extent of the clearing, the construction of these sections of haul road would not appear to have a significant environmental impact.

The proposed clearing is unlikely to be at variance to this principle.

Methodology CALM 2005

GIS databases:
- CALM Managed Lands and Waters - CALM 01/07/05
- Ravensthorpe 1.4m Orthomosaic - DLI 02t

(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**
There are no watercourses or wetlands within or immediately adjacent to the areas proposed to be cleared (GIS database). As the surface topography is relatively flat, the clearing under this application will not impact upon surface water quality, and is not likely to be at variance to this principle in this respect.

The quality of groundwater is also unlikely to be affected because of the limited spatial extent of the proposed clearing.

Methodology GIS databases:
- Hydrography, Linear-DOE 1/2/04
- Topography Contour, 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**
Flooding impacts are unlikely to occur due to the limited spatial extent (0.08 ha) of the proposed clearing. Furthermore, the areas proposed to be cleared are not associated with any permanent watercourse (GIS database). Therefore, the clearing is unlikely to cause or exacerbate the incidence or intensity of flooding and is unlikely to be at variance to this principle.

Methodology GIS databases:
- Hydrography, Linear-DOE 1/2/04
- Topography Contour, Statewide-DOLA 12/09/02

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

Comments

There are two native title claims over the areas under application; WC96/109. The claims have been registered with the National Native Title Tribunal. The Minister for Lands has confirmed in writing, dated 27 March 2006 (TRIM ref AI950), that it authorises Tectonic Resources NL to construct a road at the location under application. It is the Department's view that the grant of the clearing permit is merely a secondary approval that removes the EP Act's prohibition on the applicant exercising a right to clear native vegetation that arises pursuant to the authorisation from the Minister for Lands. Accordingly, it is the Department's view that the CEO is not required to comply with future act procedures under the Native Title Act 1993. The Department advises that the proponent contact the relevant authorities to seek advice on whether or not the road works will impact upon the Aboriginal Sites of Significance listed within the area under application. It remains the responsibility of the permit holder to ensure that, in exercising its statutory power to clear native vegetation, it complies with any obligations it may have under the Native Title Act 1993 (Cth).

There are no sites on the Register of Aboriginal Sites within the application area (GIS database).

Note that clearing must not commence until all other environmental approvals have been obtained. This may include approvals under other acts, such as the Mining Act 1978 or various Petroleum Acts.

Tectonic propose to mine the Trilogy and Kundip Ore Reserves to produce gold and silver bullion and a copper concentrate as part of the Phillips River Gold Project (Tectonic Resources, 2005). This project is currently being formally assessed by the Environmental Protection Authority with an Environmental Protection Statement level of assessment. However, the EPA confirmed on 28 September 2005 that construction of Portions A and B of the haul roads, which are associated with the project, have been withdrawn from the formal assessment process (EPA, 2005).

Methodology

EPA 2005

Tectonic Resources 2005

GIS databases:

- Aboriginal Sites of Significance - DIA 28/02/03

- Native Title Claims-DLI 7/11/05

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Road construction or maintenance	Mechanical Removal	0.08		An assessment of the application has been completed, and it is considered unlikely that the proposed clearing is at variance to any of the ten clearing principles. The assessing officer therefore recommends that the permit be granted and that no conditions are required.

5. References

- CALM (2005) Land clearing proposal advice. Advice to Program Manager Native Vegetation Assessment Branch, Department of Industry and Resources (DoIR). Department of Conservation and Land Management, Western Australia.
- Craig, GF (2005) Kundip Mining Leases Waste Dumps and Haul Road: Declared Rare & Priority Flora Surveys. Dr GF Craig, Ravensthorpe.
- 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.
- EPA (2005). Phillips River Gold Project. Letter from the Chairman of the EPA to the Managing Director of Tectonic Resources. 28 September 2005. EPA, Perth.
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALM Science after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- 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.
- Tectonic Resources (2005). Phillips River Gold Project - Vegetation Clearing Permit. Letter from the Managing Director, Tectonic Resources to Program Manager, Native Vegetation Assessment Branch, DoIR. 17 October 2005. Tectonic Resources, Perth.

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)