

## **Clearing Permit Decision Report**

### Application details

## 1.1. Permit application details

Permit application No.: 982/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Perilya Limited

1.3. Property details

Property: E21/30

Local Government Area: Shire Of Cue
Colloquial name: Moyagee Project

1.4. Application

Clearing Area (ha) No. Trees Method of Clearing For the purpose of:
0.08 Mechanical Removal Mineral Exploration

## 2. Site Information

#### 2.1. Existing environment and information

### 2.1.1. Description of the native vegetation under application

#### **Vegetation Description**

Beard vegetation association 1127: Mosaic: Saltbush & bluebush/samphire.

Beard vegetation association 240: Succulent steppe with open scrub; scattered Acacia sclerosperma & bowgada over saltbush & bluebush (Shepherd et al. 2001).

#### **Clearing Description**

Perilya Limited proposes to clear 0.08 ha of native vegetation at their Moyagee Project area (E21/30) in order to undertake air core and reverse circulation exploration drilling. The majority of the clearing will be low impact mineral activities, involving broad spaced drilling (greater than 100m x 100m drill hole density). It is only in areas where significant mineralisation is encountered that a more detailed drill-hole density (less than 100m x 100m programme) will be required

The proposed clearing activities are currently exempt under the Environmental Protection Act 1986; Regulation 5 (Prescribed clearing), Item 25- Clearing under the Mining Act 1978. However, the applicant has decided to continue with the application as there is uncertainty as to whether the proposed clearing will be undertaken prior to 8 April 2007 (exploration exemption expiry date).

#### **Vegetation Condition**

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994).

to

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994).

#### Comment

All of the drilling activities are proposed to take place within the Lake Austin boundary. However, within the lake boundary there are significant gypsum dunes throughout that rise above the lake surface. It is proposed that approximately 90% of the drilling will take place around the raised topography within the lake boundaries.

Aerial photographs show the vegetation condition to range from very good to excellent based on the Keighery (1994) scale.

## 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

#### Proposal is not likely to be at variance to this Principle

The area of proposed clearing is located within the Murchison Interim Biogeographic Regionalisation for Australia (IBRA) region which encompasses an area of 28,120,558 ha (GIS database; Shepherd et al. 2001). The proposed clearing area is situated within the boundaries of Lake Austin, a non-perennial salt lake. The vegetation types that have been identified and described for the area applied to clear grow in association with salt lakes, of which are common throughout the region (GIS database; Cowan 2001). The vegetation associations are well represented in the Murchison IBRA region with almost 100% of the pre-European vegetation remaining (Shepherd et al. 2001).

The majority of the clearing activities within the proposed clearing area is of low impact, and the total area of disturbance to native vegetation will be 0.08 ha (Perilya 2005). It is unlikely that the proposed clearing activities will impact on biodiversity values of the local area, therefore, the proposal is not likely to be at variance to this principle.

#### Methodology

Cowan (2001)

GIS Database:

- Hydrography, linear DOE 1/2/04
- Interim Biogeographic Regionalisation of Australia EA 18/10/00
- Lakes, 1M GA 01/06/00

Perilya (2005)

Shepherd et al. (2001)

## (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

Perilya Limited carried out a review of the Environment Australia Online database to identify fauna species listed under the *Environmental Protection and Biodiversity Conservation Act 1999* which may occur within the project area. The review identified two species of conservation significance which may potentially occur within the project area, the Slenderbilled Thornbird (Western) (*Acanthiza iredalei iredalei*) and the Malleefowl (*Leipoa ocellata*) (Perilya 2005; Environment Australia Online 2005).

The Slenderbilled Thornbird (Western), listed as Vulnerable under the *Environmental Protection and Biodiversity Conservation Act 1999*, occupies treeless chenopod shrubland and favours saline flats associated with salt lakes. The low salt bush surrounding Lake Austin is likely to provide suitable habitat for the Slenderbilled Thornbird, however, considering the large area of suitable habitat surrounding the project area, the low impact nature of the proposed clearing is not likely to impact on this species (Perilya 2005).

The Malleefowl, listed as Vulnerable under the *Environmental Protection and Biodiversity Conservation Act* 1999 and under Schedule 1 (Fauna that is rare or is likely to become extinct) of the Wildlife Conservation (Specially Protected Fauna) Notice 2005, is found principally in Mallee Eucalypt woodland and scrub as well as dry forest dominated by Eucalypts, Mulga and other Acacia. The Malleefowl builds its mound from the mixed sandy substrate and leaf litter. The sparsely forested area of the project area does not provide suitable nesting requirements for the Malleefowl and detailed field work in the area has not located any signs of Malleefowl activity (principally mounds) (Perilya 2005). The proposed exploration activities are not likely to impact on the Malleefowl or suitable habitat for this species.

The proposed clearing for exploration activities is of low impact and is not likely to adversely affect significant habitat for fauna species in the local area, therefore, the proposal is not likely to be at variance to this principle.

#### Methodology

Environment Australia Online (2005)

Perilya (2005)

## (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

According to CALM datasets no Declared Rare Flora (DRF) or Priority Flora species are known to occur within the area under application. The nearest known DRF is located approximately 20 km north of the proposed clearing area (GIS database).

A review of the Environment Australia Online database was undertaken by Perilya Limited to identify flora species listed under the *Environmental Protection and Biodiversity Conservation Act 1999* which may potentially occur within the project area. One flora species, *Minuria tridens*, listed as Vulnerable under the *Environmental Protection and Biodiversity Conservation Act 1999* may occur within the project area (Perilya 2005). A review of Florabase confirmed that this species may potentially occur within the vicinity of the project

area, however, Florabase indicated the conservation status of this species to be Not Threatened (Florabase 2006).

The proposed clearing for exploration purposes is likely to have minimal impact on native vegetation within the project area, therefore, the proposal is not likely to be at variance to this principle.

#### Methodology

Florabase (2006)

GIS Database:

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

Perilya (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 threatened ecological community.

## Comments Proposal is not likely to be at variance to this Principle

There are no known records of Threatened Ecological Communities (TEC's) within the area subject to be cleared (GIS database; Cowan 2001). The nearest known TEC is located approximately 220 km south-east of the proposed clearing area (GIS database). The proposal is not likely to be at variance to this principle.

#### Methodology

Cowan (2001)

GIS Database:

- Threatened Ecological Communities - CALM 12/4/05

## (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 application area falls within the Murchison IBRA region, in which approximately 100% of the pre-European vegetation remains. The vegetation type within the application area has been recorded as Beard Vegetation Association 1127: Mosaic: Saltbush & bluebush/samphire and Beard Vegetation Association 240: Succulent steppe with open scrub; scattered *Acacia sclerosperma* & *bowgada* over saltbush & bluebush (GIS database; Shepherd et al 2001). According to Shepherd et al. (2001) approximately 100% of these vegetation associations remain.

Pre-European	Current area (ha)	Remaining extent (ha)	Conservation %*	% in IUCN Status**	Class I-IV			
IBRA region – Murchison Shire of Cue	28,120,558* No information	28,120,558* available	~100%	Least concern	reserves 0.0%			
Beard vegetation associations								
- 1127	69,079	69,079	~100%	Least concern	0.0%			
- 240	119,110	119,110	~100%	Least concern	0.0%			
* Shepherd et al. (2001)								

<sup>\*\*</sup> Department of Natural Resources and Environment (2002)

The vegetation to be cleared does not represent a significant remnant of native vegetation, therefore, the proposal is not likely to be at variance to this principle.

#### Methodology

Department of Natural Resources and Environment (2002)

GIS Database:

- Pre-European Vegetation - DA 01/01

Shepherd et al. (2001)

### (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

The proposed clearing area lies within Lake Austin, a 68,356 ha non-perennial salt lake located approximately 19 km south of Cue (GIS database). Lake Austin has not been identified as a wetland of national significance under the Directory of Important Wetlands in Australia database, or of significance to the Eastern Murchison sub-region (Cowan 2001). The proposed clearing is for exploration purposes with a total area of disturbance limited to 0.08 ha, therefore, any vegetation cleared under the proposal is not likely to have a significant impact on vegetation within the lake system. Furthermore, the small amount of clearing required under the proposal is unlikely to alter the depth to water table, or result in adverse impacts to ecological communities that are wetland or groundwater dependent.

The proposal is not likely to be at variance to this principle.

#### Methodology Cowan (2001)

GIS Database:

- Hydrography, linear DOE 1/2/04
- Lakes, 1M GA 01/06/00

## (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 disturbance to native vegetation from the proposed clearing activities will be limited to a series of drill pads which will disturb approximately 8 square metres. The majority of the clearing activities will be low impact using air core and reverse circulation drilling. The proponent has advised that they plan to undertake a drilling program using a grid pattern that is greater than 100m x 100m in areas where significant mineralisation is encountered. Perilya anticipate there will be approximately 100 holes, therefore, the total area of disturbance under the proposal will be 0.08 ha (Perilya 2005). Vehicle movement within the application area will be restricted to existing tracks (Perilya 2005). Given the minor and low impact nature of the proposed clearing it is unlikely that wind or water erosion will be increased either on-site or off-site.

The proposed disturbance area is located within Lake Austin, a non-perennial salt lake (GIS database). There is a possibility that the area under application may be prone to water logging as local floodwaters drain towards Lake Austin after significant rainfall events. However, given the low impact of the proposed clearing activities it is unlikely that water logging will be increased either on-site or off-site.

In regard to salinity, the soils within the application area are already considered extremely saline with groundwater salinity exceeding 35,000 mg/L Total Dissolved Solids (GIS database). The proponent has stated that any groundwater which is brought to the surface as a result of dewatering will be stored in sumps (Perilya 2005). This will reduce the risk of saline water having an adverse impact on native vegetation within the vicinity of the drill sites. The proponent is also committed to backfilling any sumps which are used to contain saline groundwater (Perilya 2005). As the soils within the application area are already considered saline, it is unlikely that the proposed clearing of 0.08 ha will cause additional salinisation either on-site or off-site.

The clearing of native vegetation under this proposal is not likely to result in appreciable land degradation, therefore, the proposal is not likely to be at variance to this principle.

### Methodology

GIS Database:

- Groundwater Salinity, Statewide 22/02/00
- Hydrography, linear DOE 1/2/04
- Lakes, 1M GA 01/06/00

Perilya (2005)

## (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

There are no CALM managed conservation areas within the proposed clearing area. The nearest conservation area is a CALM managed timber reserve which is situated approximately 210 km south-west of the project area (GIS database). Considering the distance between this proposal and the CALM managed timber reserve, the proposed clearing is not at variance to this principle.

### Methodology

GIS Database:

- 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 proposed area of clearing is located within the Yilgarn-Murchison groundwater province which covers approximately 101,000 sq km. Groundwater quality in the area would already be considered poor with groundwater salinities exceeding 35,000 mg/L Total Dissolved Solids (GIS database), therefore, the small amount of clearing required under the proposal is unlikely to further impact on groundwater quality in the area. Furthermore, the proposal does not fall within a Public Drinking Water Source Area, therefore, there is no risk of deterioration to the quality of public water supplies (GIS database).

The majority of exploration activity at Moyagee will be low impact mineral activities involving broad space drilling (greater than 100 x 100 m drill hole density). It is only in areas where significant mineralisation is encountered that a more detailed drill hole density (less than 100 x 100 m programme) will be required (Perilya 2005). The clearing of 0.08 ha across Exploration Licence 21/30 is unlikely to cause appreciable erosion or

sedimentation risk, therefore, the quality of surface water is not likely to be impacted on.

The proposal raises no water quality issues, therefore, it is not likely to be at variance to this principle.

#### Methodology

GIS Database

- Groundwater Salinity, Statewide 22/02/00
- Public Drinking Water Source Areas (PDWSAs) DOE 07/02/06

Perilya (2005)

# (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 proposed clearing area is located within the boundaries of Lake Austin, a non-perennial salt lake (GIS database). The proposed clearing is for exploration purposes and the total area of disturbance is only 0.08 ha (Perilya 2005). Clearing of native vegetation is not likely to be sufficiently large enough to cause or increase the incidence of flooding in the area, therefore, the proposal is not likely to be at variance to this principle.

#### Methodology

GIS Database:

- Hydrography, linear DOE 1/2/04
- Lakes, 1M GA 01/06/00

Perilya (2005)

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

#### Comments

Perilya Limited's clearing application 982/1 is currently exempt under the *Environmental Protection Act 1986*; Regulation 5 (Prescribed Clearing), Item 25- Clearing under the *Mining Act 1978*, as the clearing is for exploration purposes outside of Environmentally Sensitive Areas. However, the applicant has decided to continue with the application as there is uncertainty as to whether the proposed clearing will be undertaken prior to 8 April 2007 (exploration exemption expiry date).

There is a native title claim over the area under application; WC99/046 (GIS database). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenement has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no known sites of aboriginal significance within the proposed area to be cleared (GIS database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no sites of aboriginal significance are damaged through the clearing process.

The proponent does not have a current licence or works approval for this property (DoE 2006).

The proponent does not have a current ground or surface water licence for this project (DoE 2006).

The Shire of Cue determined at the council meeting on 29 March that the application to clear native vegetation from Perilya Limited has the full support of the Council and that there are no objections or comments (Shire of Cue 2006).

## Methodology

DoE (2006)

GIS Database:

- Aboriginal Sites of Significance DIA
- Native Title Claims DLI 7/11/05

Shire of Cue (2006)

#### 4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mineral Exploration	Mechanical Removal	0.08	Grant	The clearing principles have been addressed and the proposed clearing is not at variance with principle h.
				The proposed clearing is not likely to be at variance with principles a, b, c, d, e, f, g, i and j.
				The assessing officer recommends that the permit be granted.

### 5. References

- Cowan, M. (2001). Murchison 1 (MUR1- East Murchison subregion) in 'A Biodiversity Audit of Western Australia's 53
  Biogeographical Subregions in 2002'. Report published by the Department of Conservation and Land Management,
  Perth, 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.
- DoE (2006). DoE licence checks. Advice to the Native Vegetation Branch, Department of Industry and Resources. Department of Environment, Western Australia.
- Environment Australia Online (2005). Protected Matters Search Tool. A search between the coordinates; (-27.7513, 117.9843), (-27.7513, 117.7909), (-27.53905, 117.7909), (-27.53905, 117.9843). Department of Environment and Heritage. Australian Government, Australia. Viewed 22 November 2005. <a href="http://www.deh.gov.au/cgi-bin/erin/ert/ert">http://www.deh.gov.au/cgi-bin/erin/ert/ert</a> dispatch.pl?loc type=coordinate&search=Search&report=epbc>
- Florabase (2005). The Western Australia Flora, A search for Minuria tridens, Western Australia Herbarium, Department of Conservation and Land Management, Perth, viewed 22 November 2005, <a href="http://florabase.calm.wa.gov.au.html">http://florabase.calm.wa.gov.au.html</a>>.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Perilya Limited (2005). Documentation supporting clearing permit application, Prepared by Perilya Limited, Perth, WA. 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 (updated 2005).
- Shire of Cue (2006). Direct Interest Submission for CPS 982/1. Letter addressed to Program Manager, Native Vegetation Branch, Department of Industry and Resources. Shire of Cue, Cue, Western Australia.

## 6. Glossary

### Acronyms:

**BoM** Bureau of Meteorology, Australian Government.

**CALM** Department of Conservation and Land Management, Western Australia.

**DAFWA** Department of Agriculture and Food, Western Australia.

**DA** Department of Agriculture, Western Australia.

**DEH** Department of Environment and Heritage (federal based in Canberra) previously Environment Australia

**DEP** Department of Environment Protection (now DoE), Western Australia.

**DIA** Department of Indigenous Affairs

DLI Department of Land Information, Western Australia.DoE Department of Environment, Western Australia.

DOLA Department of Industry and Resources, Western Australia.

DOLA Department of Land Administration, Western Australia.

EP Act Environment Protection Act 1986, Western Australia.

EPBC Act Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)

**GIS** Geographical Information System.

**IBRA** Interim Biogeographic Regionalisation for Australia.

IUCN International Union for the Conservation of Nature and Natural Resources – commonly known as the World

Conservation Union

RIWI Rights in Water and Irrigation Act 1914, Western Australia.

**s.17** Section 17 of the Environment Protection Act 1986, Western Australia.

TECs Threatened Ecological Communities.

## **Definitions:**

{Atkins, K (2005). Declared rare and priority flora list for Western Australia, 22 February 2005. Department of Conservation and Land Management, Como, Western Australia}:-

P1 Priority One - Poorly Known taxa: taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

**Priority Two - Poorly Known taxa**: taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

P3 Priority Three - Poorly Known taxa: taxa which are known from several populations, at least some of which

are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.

- Priority Four Rare taxa: taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
- R Declared Rare Flora Extant taxa (= Threatened Flora = Endangered + Vulnerable): taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
- X Declared Rare Flora Presumed Extinct taxa: taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1 Fauna that is rare or likely to become extinct: being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
- Schedule 2 Fauna that is presumed to be extinct: being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3 Birds protected under an international agreement: being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4 Other specially protected fauna: being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). Priority Codes for Fauna. Department of Conservation and Land Management, Como, Western Australia}:-

- P1 Priority One: Taxa with few, poorly known populations on threatened lands: Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2 Priority Two: Taxa with few, poorly known populations on conservation lands: Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- Priority Three: Taxa with several, poorly known populations, some on conservation lands: Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4 Priority Four: Taxa in need of monitoring: Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
- **Priority Five: Taxa in need of monitoring**: Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

#### Categories of threatened species (Environment Protection and Biodiversity Conservation Act 1999)

**EX Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.

**EX(W) Extinct in the wild:** A native species which:

- (a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
- (b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past

range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.

**CR Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.

**EN Endangered:** A native species which:

- (a) is not critically endangered; and
- (b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.

VU Vulnerable: A native species which:

- (a) is not critically endangered or endangered; and
- (b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with

the prescribed criteria. **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered CD within a period of 5 years. Page 8