



1. Application details

1.1. Permit application details

Permit application No.: 682/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: MR Steven Colin Caporn

1.3. Property details

Property: P39/4265
P39/4267
Local Government Area: Shire Of Leonora
Colloquial name: P39/4265 & P39/4267

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
10		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	Clearing Description	Vegetation Condition	Comment
The vegetation found within the proposed clearing area is part of Beard Vegetation Association 39 (Shepherd et al 2001), Shrublands Mulga Scrub. The proponent described the vegetation as low scrub in the Low Impact Notice of Intent document lodged with DoIR in 2005 (DoIR 2005).	The proposed clearing is to occur for the purposes of gold prospecting. According to the Low Impact Mining Notice of Intent, submitted by the proponent to DoIR on the 19th September 2005, the maximum depth to be excavated will be 6 inches and less than one hectare will be cleared at one point in time (DoIR 2005).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The area within lease P39/4267 has been disturbed by past detecting activity that occurred in 2002 (Leonora Mining Registrar correspondence dated 16 January 2003). The vegetation condition assessment is based on comments provided by Mr Matt Stingemore, Environmental Officer for DoIR based in Kalgoorlie, to Philip Boglio, Environmental Assessor for DoIR based in Perth, on the 28th October 2005. In accordance with the document titled Notice of Intent-Low Impact Mining Operation-Scraping and Detecting on P39/4265 and P39/4267 (EXP 3565) dated 19th September 2005 and signed by Mr Steven Caporn an Annual Environmental Report form is required to be lodged every October for this proposal (DoIR 2005). The tenement conditions attached to P39/4265 and P39/4267 specify that the areas cleared are to be backfilled with topsoil that is to be stockpiled separately from other materials excavated and respread no later than 6 months after excavation, unless with the prior approval of the DoIR District Mining Engineer (DoIR 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 permit application is situated within the Eastern Murchison (MUR1) IBRA (Interim Biogeographic Regionalisation of Australia) subregion (Environment Australia 2000). Cowan (2004) describes the Eastern Murchison IBRA subregion as being rich and diverse in both its flora and fauna but notes that most species are wide ranging and occur in other subregions as well. The vegetation in the general area has been severely impacted by pastoral activity, grazing by goats and previous mining and exploration activity (Matt Stingemore pers comm. 2005). In addition an area of prospecting lease P39/4267 was disturbed in 2002 by an unauthorised scrape and detect operation (DoIR 2003).

As the fauna and flora of the area are widely distributed and the level of disturbance of the proposed area of

clearing is high, it is unlikely to be of high biological diversity and the proposal is unlikely to be at variance to principle (a).

Methodology Cowan (2004) Murchison 1 (MUR1-East Murchison Subregion) pp466-479 in 'A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002'.
DA (2001) Pre European Vegetation 01/01.
DoIR (2003) Leonora Mining Registrar correspondence to the applicant Steven Caporn, dated 16 January 2003.
Environment Australia (2000) EA IBRA (subregions) 18/10/00.

(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

Cowan (2004) listed two Scheduled fauna species as occurring on Beard vegetation type 39. They are the Mulgara (*Dasycercus cristicaudata*) and Great Desert Skink (*Egernia kintorei*).

The closest known Mulgara populations occur to the north east of Meekathara approximately 200 kilometres to the North East (CALM 2005) and based on their current distribution this species is unlikely to occur in the area.

The Great Desert Skink typically occurs further east of the proposed clearing areas in hummock grass sandplains (McAlpin 2001) and based on its current distribution and known habitat preference type is unlikely to be present within the proposed clearing areas (CALM 2005).

A search of the West Australian Museum records for an area 60 kilometres square with the proposed clearings at the centre showed no scheduled species as being recorded (WAM 2003).

The Schedule Four (Fauna that is otherwise protected) Peregrine Falcon *Falco peregrinus* is recorded approximately 30 kilometres to the east (CALM 2005). This species occurs across most of Australia in a wide variety of habitats and has a large home range typically of 20-1500 square kilometres. Therefore the proposed activities are unlikely to have an adverse impact on this species.

Due to the small scale of the clearing, the small areas cleared at any one time and the requirement for backfilling and rehabilitation to take place within 6 months of the excavations, the proposal is unlikely to be at variance to principle (b).

Methodology CALM (2005) Threatened Fauna 30/09/05 and associated Email advice from Michael Roberts (CALM Officer) given on 3rd and 8th of November 2005.
Cowan (2004) Murchison 1 (MUR1-East Murchison Subregion) pp466-479 in 'A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002'.
McAlpin S (2001) The Recovery plan for the Great Desert Skink (*Egernia kintorei*) 2001-2011.
Western Australian Museum faunabase database (2003)

(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

Based on existing records there are no known Declared Rare Flora species in the vicinity of the proposed clearing areas (CALM 2005).

Seven known populations of the Priority Four listed plant species *Hemigenia exilis* are located within 11 kilometres of the proposed clearing (CALM 2005) and are found within the same Beard Vegetation type. It is possible that some plants of that species will be cleared as a result of the scrape and detect operations proposed.

Based on *Hemigenia exilis* representation at the WA Herbarium and CALM's Threatened Flora Data Management System, this taxon is unlikely to be limited to the habitat which exists within the proposed clearing areas (CALM advice 2005).

The area of the proposed clearing is not considered necessary for the continued existence of any rare or priority flora.

Methodology CALM (2005) flora database 2005.
CALM advice (2005) Email advice provided by Michael Roberts from CALM on 3rd November 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

No known Threatened Ecological Communities are located in the vicinity of the proposed clearing and it is

unlikely that the proposed clearing will be at variance with this principle (CALM TEC 2005).

Methodology 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 at variance to this Principle

The permit areas are situated within the Eastern Murchison IBRA (Interim Biogeographic Regionalisation of Australia) subregion. Approximately 100% native vegetation cover remains within this subregion (Shepherd et al, 2001). The vegetation association present within the proposed clearing areas is classified as Beard's Vegetation Association 39 (Pre European Vegetation DA 01/01), of which about 100 % remains of its pre European extent (Shepherd et al 2001).

Based on the National Objective Targets for Biodiversity Conservation 2001-2005 (Department of Natural Resources and Environment 2002), the extent of Beard vegetation association 39 left within the Murchison IBRA region is classified as of least concern (more than 30% of the pre European natural vegetation type remains).

The proposal is not considered at variance with this principle.

Methodology Shepherd et al (2001).
Department of Agriculture, Pre European Vegetation (01/2001).
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

Two minor non-perennial streams occur within prospecting lease P39/4265 (DOE Hydrography 2004). However the vegetation type occurring within both areas proposed to be cleared is not associated with wetlands or watercourses. The groundwater is situated below the level of the excavation proposed and drilling is not required for the type of activity proposed. The proposed clearing is not at variance with this principle.

Methodology DoE Hydrography (2004).

(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 areas of proposed clearing occur on topography with low gradients. The region is characterised by low annual rainfall of approximately 250 mm a year (DoE 2005) and high evaporation of about 3400mm a year (BoM 1998). Due to the relatively flat topography, low rainfall, the small amount of clearing occurring at any one time and the requirement under the tenement conditions for rehabilitation to take place within 6 months of the excavation, it is unlikely that the clearing will cause appreciable land degradation.

Methodology BoM (1998) Evaporation isopleths BoM 09/1998.
DoE (2005) Isohyets (1975-2003) DoE 09/05.

(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 conservation reserves within 50 kilometre radius of the areas proposed to be cleared. The nearest conservation reserve is Coonjarrie National Park approximately 97 kilometres to the south (CALM Managed Land and Waters 2005) and will not be affected by the proposed clearing.

Methodology 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

Because of its small scale the proposed clearing is unlikely to increase land salinisation in the area. With high annual evaporation rates and low annual rainfall there is little recharge into regional groundwater. Similarly the proposed clearing is unlikely to have an impact on regional groundwater considering the magnitude of the Yilgarn-Goldfields Groundwater Province (~300,000 sq km) and the extent of native vegetation remaining in the Murchison Bioregion (~100%, Shepherd 2001).

No extra water requirements are necessary for the proposed works (DoIR 2005). The proposed clearing is not situated within a PDWSA (Public Drinking Water Source Area) area (DoE 2005) or RIWI Act area (WRC 2002).

Methodology DoE (2005) PDWSA 09/08/05.
DoIR (2005) Low Impact Mining Notice of Intent signed on 19th Sept 2005 by S Caporn.
WRC (2002) RIWI Act areas 05/04/02.

(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 at variance to this Principle

With an average annual rainfall of 250mm and an annual evaporation rate of 3,400mm (BoM 1998, DoE 2005) there is little surface flow during normal seasonal rains. It is only during major rainfall events that there is a likelihood of very temporary flooding which occurs within the broad valleys and lake systems of the region.

Given the small size of the areas being cleared at any one time and the local climate, which is characterised by high evaporation and low rainfall (BoM 1998, DoE 2005), the proposed clearing will not exacerbate flooding in the local area.

Methodology BoM (1998) Evaporation isopleths BoM 09/1998.
DoE (2005) Isohyets (1975-2003) DoE 09/05.

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

Comments

There is a Native Title Claim by the Wongatha People over the areas under application (Native Title Claims-DLI 19/12/04). However, the prospecting leases have been granted, and the clearing is for a purpose consistent with the leases, therefore the granting of a clearing permit is not a future act under the Native Title Act 1993. No known Aboriginal Sites of Significance are located within the areas proposed to be cleared.

Methodology DIA (2003) Aboriginal Sites of Significance DIA 28/02/03.
Native Title Claims-DLI 19/12/04.

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mineral Exploration	Mechanical Removal	10	Grant	The proposal is judged unlikely to be at variance to principles a,b,c,d,g,i and is judged not at variance to principles e,f,h and j. Based on the above and the requirements for rehabilitation and annual reporting to occur according to the existing Mining Act 1978 tenement conditions attached to prospecting leases P39/4265 and P39/4267, the assessing officer judges this proposal to have a minimal environmental impact and recommends the grant of the permit.

5. References

Cowan, M.(2004) Murchison 1 (MUR1-East Murchison Subregion) pp466-479 in A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002. Unpublished report by CALM, 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.

DoIR (2005) Notice of Intent-Low Impact Mining Operation-Scraping and Detecting on P39/4265 and P39/4267 (EXP 3565), dated and signed by Mr Steven Caporn on the 19th September 2005 and associated letter from Mr Matt Stingemore DoIR Environmental Officer dated 3rd October giving approval to the project according to the tenement conditions.

Keighery, BJ (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

McAlpin, S.(2001) The Recovery plan for the Great Desert Skink (Egernia kintorei) 2001-2011. Report to the Department of Environment and Heritage, Canberra.

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.

6. Glossary

Term	Meaning
BoM	Bureau of Meteorology
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)