Department of Environment
Government of Western Australia

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 435/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Mount Magnet Gold NL**

1.3. Property details

Property: M58/81
Local Government Area: Shire Of Mount Magnet
Colloquial name: Bartus East Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
10		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 312: Succulent steppe with very open shrubs; very sparse mulga and Acacia sclerosperma over saltbush and bluebush (Hopkins et al 2001, Shepherd et al 2001).	The vegetation of the Bartus East proposed clearing area is characterised as scattered Mulga with scattered shrub and grass understorey that is common throughout the district. Species present are typical of the Jundee land system and include Acacia aneura (Mulga), A. tetragonophylla (Karara), A. grasbyi (Miniritchie), Ptilotus obovatus (Cotton Bush), Maireana species (Bluebush), Sclerolaena species and Solanum lasiophyllun (Flannel Bush).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Evidence of the vegetation condition: The vegetation of the Bartus East project area is sparse. Some approved clearing has already been done in 2004 with past drilling programs (Rokich 2004). the Mt Magnet area has historically been used for pastoral and mining purposes (Mt Magnet Gold, 1997) and significant populations of goats have been noted throughout surveyed areas (Cockerton, 1999). The proponent has also provided photographs of representative vegetation (Rokich 2004). Evidence provided suggests that the previous use of land (through human activity and feral grazing) has significantly reduced species richness and density.

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 Bartus East project area falls within the Murchison Bioregion; a region not recognised for its biodiversity. Some approved clearing has already occurred in the area with past drilling programs (Rokich 2004). In addition the Mt Magnet area has historically been used for pastoral and mining purposes (Mt Magnet Gold, 1997) and significant populations of goats have been noted throughout surveyed areas (Cockerton, 1999). Evidence provided suggests that the previous use of land (through human activity and feral grazing) has significantly reduced species richness and density, therefore the application is not at variance to this Principle.

Methodology

GIS Databases: Interim Biogeographic Regionalisation of Australia-EA 18/10/00.
Cockerton (Landcare Services Pty Ltd), 1999.
Mt Magnet Gold, 1997
Rokich, 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

A fauna survey conducted within Mt Magnet Gold leases by Murcox Biological Services (Mt Magnet Gold, 1997)

during 1993-1994 identified 128 vertebrate species. These included 84 birds species, 23 reptile species, 4 amphibian species and 11 native and 6 introduced mammalian species. Of the species recorded, none have been declared rare or priority under the Wildlife Conservation Act.

Methodology 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)].
Mt Magnet Gold, 1997.

(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

Flora recorded in the Mt Magnet area includes 42 families and 297 species: Aizoaceae [3], Amaranthaceae [13], Apocynaceae [1], Asclepiadaceae [2], Asteraceae [23], Brassicaceae [5], Caesalpiniaceae [10], Casuarinaceae [1], Chenopodiaceae [43], Chloanthaceae [2], Convulvulaceae [3], Cupressaceae [1], Epacridaceae [1], Euphorbiaceae [4], Frankeniaceae [3], Geraniaceae [1], Goodeniaceae [6], Gyrostemonaceae [1], Lamiaceae [5], Lobeliaceae [1], Loranthaceae [2], Malvaceae [11], Mimosaceae [31], Myoporaceae [29], Myrtaceae [18], Papilionaceae [3], Phormiaceae [1], Pittosporaceae [1], Poaceae [21], Polygonaceae [2], Portulaceae [2], Proteaceae [15], Rubiaceae [3], Rutaceae [1], Santalaceae [4], Sapindaceae [7], Solanaceae [6], Sterculiaceae [3], Stylidaceae [1], Thymeliaceae [1], Violaceae [1] and Zygophyllaceae [5] (Mt Magnet Gold, 1997).

Twelve of the 297 plant taxa recorded are currently assigned special conservation status under the Wildlife Conservation [Rare Flora] Notice [2002] and Declared Rare and Priority Flora List for Western Australia. These are Alyxia tetanifolia (Priority 3), Calytrix erosipetala (Priority 3), Dicrastylis linearifolia (Priority 3), Goodenia neogoodenia (Priority 4), Grevillea inconspicua (Priority 4), Homalocalyx inerrabundus (Priority 2), Jacksonia lanicarpa (Priority 1), Lepidobolus deserti (Priority 4), Millotia depauperata (Priority 1), Petrophile pauciflora (Priority 3), Hemigenia tysonii (Priority 3) and Acacia speckii (Priority 3). The area under application is small (10ha) and has already been partially cleared, therefore the proposal is not at variance to this Principle.

Methodology GIS Databases: Declared Rare and Priority Flora list - CALM 13/08/03.
Mt Magnet Gold, 1997
Rockich, 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)].

(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) database did not include the mining tenements affected by this application.

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 not at variance to this Principle

The Murchison Bioregion and Beard vegetation association 312 both have greater that 50% of the native vegetation remaining, making them of least concern by conservation status standards. The proposed clearing is therefore not at variance to this Principle.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation status**	Reserves/CALM-managed land, %
IBRA Bioregion - Murchison	28,206,195	28,206,195	100.0	Least concern	Not available
Shire - Mt Magnet	Not available	Not available	Not available	Not available	Not available
Beard Veg type 312	47,258	47,258	100	Least Concerm	0

* (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 is surrounded by a number of non-perennial watercourses. None of these represents a habitat of environmental significance. The proposed clearing is therefore, not at variance to this Principle.

Methodology GIS Databases: Hydrography, linear - DoE 01/02/04

(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 vegetation proposed to be cleared is already highly degraded, experiences average rainfall (Rokich, 2003) and does not fall within the salinity risk area. The relatively small area to be cleared (10 hectares) is unlikely to cause appreciable land degradation issues on or off site.

Methodology Rokich, 2003.
Rokich et al., 2004.
GIS Databases - Rainfall, Mean Annual - BOM 30/09/01, Salinity Risk LM 25m - DOLA 00.

(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 fall within, provide a buffer for, or contribute an ecological linkage to a conservation area.

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 falls within the YarraMonger hydrographic catchment and covers the Mt Magnet (Genga Wellfeild) and Mt Magnet (Genga) water reserves. The proposed area of vegetation is relatively small (10 hectares), therefore the proposal is not likely to cause deterioration in the quality of surface or underground water (Midwest Gascoyne Hydro Unit, 2005).

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.
Midwest Gascoyne Hydro Unit, 2005.

(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 characterised by a Mediterranean-Desert climate with a highly variable average rainfall of 237mm. Evaporation (2597mm/year) exceeds rainfall by a factor of 10 (Rokich, 2003). The proposed clearing is relatively small and will not lead to an incremental increase in peak flood height or duration.

Methodology Rokich, 2003.
GIS Databases - Rainfall, Mean Annual - BOM 30/09/01

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

Comments

The Shire Mount Magnet 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 Removal	10	**Grant**	The assessable criteria have been addressed and no objections were raised. The assessing officer therefore recommends that the permit should be granted.

5. References

Cockerton, G., 1999. Correspondence to Mount Magnet Gold regarding Alyxia tetanifolia. Landcare Services Pty Ltd. York, 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.

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.

Mount Magnet Gold Operations, 1997. Mount Magnet Gold NL Connor Deposit Notice of intent. Mount Magnet, Western Australia.

Rokich, P., 2003. Harmony Lone Pine stormwater diversion notice of intent. Mt Magnet, Western Australia.

Rokich, P., 2004 Application for a Clearing Permit - Mount Magnet Gold, Mining lease M58/81. Mt Magnet, 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.