



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3686/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Minjar Gold Pty Ltd

1.3. Property details

Property: Mining Lease 59/219
Mining Lease 59/421
Local Government Area: Shire of Yalgoo
Colloquial name: Windinne Well Mining Project

1.4. Application

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

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

Beard Vegetation Associations have been mapped at a 1:250,000 scale for the whole of Western Australia and are useful to look at vegetation extent in a regional context. Two Beard Vegetation Associations are located within the proposed clearing area (GIS Database):

- Beard Vegetation Association 202: Shrublands; mulga & *Acacia quadrimarginea* scrub; and

- Beard Vegetation Association 420: Shrublands; bowgada & jam scrub.

Mattiske Consulting undertook and flora and vegetation survey of Minjar Gold Pty Ltd's tenements (which included the application area) on the 16-20 November 2009. Consequently, the following vegetation associations were recorded within the application area:

A9: Tall Shrubland of *Acacia ayersiana*, *Acacia ramulosa* var. *ramulosa*, *Acacia aneura* with *Acacia sibina* and *Grevillea obliquistigma* subsp. *obliquistigma* over *Drummondita fulva* (Priority 3), *Eremophila latrobei* subsp. *latrobei* and *Aluta aspera* subsp. *hesperia* with low shrubs over annuals on orange brown sandy loam with rock cover on slopes and ridges.

A23: Tall Open Shrubland of *Acacia ayersiana* over *Thryptomene decussata* and mixed *Acacia* spp. with *Grevillea obliquistigma* subsp. *obliquistigma* over *Hibbertia arcuata* and mixed low shrubs over annuals on rocky orange-brown sandy loam on mid to upper-slopes.

Clearing Description

Minjar Gold have applied to clear 18.85 hectares of native vegetation for the extension of an existing pit to the north and waste dump to the south, the implementation of an ore transfer station, safety walls, abandonment bunds, access roads and goat fencing (Minjar Gold Pty Ltd, 2010).

Native vegetation and topsoil removed during clearing operations will be stockpiled separately for use in future rehabilitation works (Minjar Gold Pty Ltd, 2010).

Vegetation Condition

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

To

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994)

Comment

The vegetation condition rating is derived from information provided by Minjar Gold Pty Ltd (2010), Mattiske Consulting Pty Ltd (2009) and analysis of aerial photography and imagery.

the November 2009 survey:

Drummondita fulva (Priority 3) is an erect, branching shrub from 0.5-1.5 metres tall, known to occur on shallow, acidic soils or orange-red-brown sandy loams and clayey silts on lower to upper slopes (Mattiske Consulting, 2009). This species was recorded at twelve locations in the larger Windinne Well project area, with populations ranging from 1-25 individuals indicating that it is abundant in the local area (Mattiske Consulting, 2009). Only one of these populations is proposed to be cleared where 6-10 individuals will be removed. Given the abundance of this species in the local area, and the fact that there are 15 other records of this species in the Western Australian Herbarium (Mattiske Consulting, 2009), it is unlikely that the proposed clearing will significantly reduce the overall habitat of this species.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Mattiske Consulting (2009).

(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 Threatened Ecological Communities within the application area (GIS Database; Mattiske Consulting, 2009).

There is one Priority Ecological Community (PEC) named 'Minjar/Gnows Nest' vegetation complex (banded ironstone formation) which is known from the Minjar area (GIS Database). This PEC was recorded during the flora and vegetation assessment; however, it was recorded outside of the application area approximately 350 metres to the north-east (Mattiske Consulting, 2009). Given the distance between the proposed clearing and the PEC it is unlikely the environmental values of this PEC will be compromised from the proposed clearing.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Mattiske Consulting (2009).
GIS Database:
- Threatened Ecological Sites.

(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 area applied to clear is within the Interim Biogeographic Regionalisation of Australia (IBRA) Yalgoo bioregion (GIS Database). According to Shepherd (2007) there is approximately 98.9% of the pre-European vegetation remaining in the Yalgoo bioregion (see table below). The vegetation of the proposed clearing area is classified as Beard Vegetation Association 202: Shrublands; Mulga & *Acacia quadrimarginea* scrub & Beard Vegetation Association 420: Shrublands; bowgada & jam scrub (GIS Database). Both of these Beard Vegetation Associations have a high level of pre-European vegetation remaining in the state and Yalgoo bioregion (Shepherd, 2007).

The area proposed to clear does not represent a significant remnant of native vegetation in the wider regional area. The proposed clearing will not reduce the extent of Beard Vegetation Association 202 or Beard Vegetation Association 420 below the current recognised threshold level of 30% of the pre-clearing extent of the vegetation type (below which species loss accelerates exponentially at an ecosystem level) (EPA, 2000).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Yalgoo	5,057,316	5,001,943	~98.9	Least concern	9.85
Beard vegetation associations - State					
202	448,529	448,529	~100	Least concern	0.4
402	859,632	829,286	~96.5	Least concern	0.1
Beard vegetation associations - Bioregion					
202	45,096	45,096	~100	Least concern	No data available
402	621,396	621,396	~100	Least concern	No data available

(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 in the application area (GIS Database). Minjar Gold Pty Ltd (2010) state that in order to manage the potential for sedimentation during large rainfall events, runoff from the waste dump will be directed into 'armoured' drop structures. The directed water will flow through silt traps at the base of the waste dump, before dispersing into the surrounding shrubland. This action is likely to reduce the risk of sedimentation of surface water within the application area.

The proposed clearing is not located within a Public Drinking Water Source Area (GIS Database). The watertable in the application area is approximately 45 metres below surface (Minjar Gold Pty Ltd, 2010). Given the depth of groundwater in the application area, the proposed clearing is unlikely to significantly affect groundwater levels or quality.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Minjar Gold Pty Ltd (2010).
GIS Database:
- Hydrography, linear (medium scale)
- Public Drinking Water Source Areas (PDWSAs)

(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

There are no watercourses or wetlands in the proposed clearing area (GIS Database).

The region is characterised by an arid climate with cool winters and hot, dry summers (Minjar Gold Pty Ltd, 2010). The average annual rainfall is approximately 200 millimetres, whilst the annual evaporation rate is 2,400 millimetres (Minjar Gold Pty Ltd, 2010; GIS Database). Consequently, any surface water within the application area is likely to evaporate quickly.

Native vegetation clearing is likely to increase surface water run-off, however there is not likely to be an increase in the incidence or intensity of natural flood events in the local or regional area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Minjar Gold Pty Ltd (2010).
GIS Database:
- Evapotranspiration, Point Potential
- Hydrography, linear.

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

Comments

There are no Native Title Claims over the area under application (GIS Database).

According to available GIS databases there are no Aboriginal Sites of Significance over the application area (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.

It is the proponent's responsibility to liaise with the Department of Environment and Conservation and the Department of Water to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

The clearing permit application was advertised 19 April 2010 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received in relation to the clearing permit application.

Methodology GIS Database:
- Aboriginal Sites of Significance.
- Native Title Claims.

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.
- P4 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 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 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 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 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.
- P3 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.
- P5 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: