



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5424/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: TG and JM McLean

1.3. Property details

Property: Mining Lease 70/208
Local Government Area: Shire of Lake Grace
Colloquial name: Lake Camm Gypsum Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
6		Mechanical Removal	Rehabilitation

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 11 April 2013

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 for the whole of Western Australia. One Beard vegetation association has been mapped within the application area (GIS Database):

511: Medium woodland; salmon gum & morel.

Clearing Description TG and JM McLean have applied to clear up to 6 hectares of native vegetation within a 23.7 hectare boundary. The purpose of the clearing is to conduct rehabilitation of previously mined areas.

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

Comment The application area is located within the Mallee bioregion of Western Australia and is situated approximately 16 kilometres north west of Lake King.

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 application area occurs within the Western Mallee (MAL2) subregion of the Mallee Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). This subregion is characterised by clays and silts underlain by Kankar, exposed granite, sandplains and laterite pavements. Salt lake systems occur on a granite basement, with occluded drainage systems (CALM, 2002). Mallee communities can be found on a variety of surfaces while *Eucalyptus* woodlands occur mainly on fine-textured soils, with scrub heath on sands and laterite (CALM, 2002).

An inventory of flora within the application area was recorded by Rick (2012). This survey identified 20 native flora species within the application area (Rick, 2012). As the purpose of the proposed clearing is for rehabilitation, it is considered unlikely to impact on floral diversity locally or regionally.

Given the degraded nature of the application area, it is considered unlikely to contain a high level of faunal diversity.

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

Methodology CALM (2002)
Rick (2012)
GIS Database:
- IBRA WA (regions – subregions)

(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

A search of the NatureMap database conducted by the assessing officer identified one conservation significant fauna species, Western Brush Wallaby (*Macropus Irma*) Priority 4 (DEC, 2013). Given the small scale of the proposed clearing (6 hectares) and the degraded nature of the application area, the proposed clearing is considered unlikely to impact upon significant habitat for fauna indigenous to Western Australia.

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

Methodology DEC (2013)

(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 available databases there are no Threatened Flora species within the application area (GIS Database). No Threatened Flora species were recorded within or adjacent to the application area during a Flora survey conducted by Rick (2012) in October 2012.

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

Methodology Rick (2012)
GIS Database:
- Threatened and Priority Flora

(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 (TECs) within the application area (GIS Database). The nearest known TEC is located approximately 70 kilometres south west of the application area (GIS Database). At this distance there is little likelihood of any impact to the TEC as a result of the proposed clearing.

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

Methodology GIS Database:
- Threatened Ecological Sites Buffered

(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 application area is located within the Mallee Interim Biogeographical Regionalisation for Australia (IBRA) bioregion (GIS Database). Approximately 55.64% of the pre-European vegetation remains within the Mallee bioregion (Government of Western Australia, 2011).

The vegetation within the application area has been broadly mapped as Beard vegetation association:

511: Medium woodland; salmon gum & morel.

Approximately 37.23% of Beard vegetation association 511 remains within the Mallee bioregion (see table on next page) (Government of Western Australia, 2011).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Extent in DEC Managed Lands %*
IBRA Bioregion - Mallee	7,395,897	4,114,885	~55.64	Least Concern	~30.74
IBRA Subregion - Western Mallee	3,981,718	1,412,716	~35.48	Depleted	~24.17
Local Government - Lake Grace	1,188,337	410,818	~34.57	Depleted	~39.46
Beard vegetation associations - State					
511	700,693	499,177	~71.23	Least Concern	~19.37
Beard vegetation associations - Bioregion					
511	139,877	52,071	~37.23	Depleted	~18.24
Beard vegetation associations - subregion					
511	139,877	52,071	~37.23	Depleted	~18.24

* Government of Western Australia (2011)

** Department of Natural Resources and Environment (2002)

Beard vegetation association 511 is considered to be depleted within the Mallee bioregion, however, given the nature (rehabilitation of a previously cleared area) and the scale (6 hectares) of the proposed clearing, it is considered unlikely to impact on this vegetation association.

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

Methodology Department of Natural Resources and Environment (2002)
Government of Western Australia (2011)
GIS Database:
- IBRA WA (regions – subregions)
- Pre-European vegetation

(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 at variance to this Principle

According to available databases, the application area is located within a non-perennial lake (GIS Database). The area has been previously cleared for mining activities and the purpose of the proposed clearing is to assist in the implementation of a rehabilitation program. While the vegetation is growing in association with an environment associated with a non-perennial lake, it is considered to be of degraded (Rick, 2012) and the proposed clearing is to improve the quality of this vegetation.

Based on the above, the proposed clearing is at variance to this Principle.

Methodology Rick (2012)
GIS Database:
- Hydrography, linear

(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 area under application has previously been disturbed for mining activities (McCawley, 2012). The proposed activities under this clearing permit are to rehabilitate the area that has been previously disturbed. It is therefore considered unlikely that the proposed clearing will cause appreciable land degradation.

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

Methodology McCawley (2012)

(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 at variance to this Principle

The application area is located within the Lake King Nature Reserve (GIS Database). As the area has previously been cleared, the proposed clearing to conduct a rehabilitation program is considered unlikely to significantly impact on the environmental values of this conservation area.

The increased vehicle movements within the area may lead to weed species being spread throughout the area. Potential weed infestations have the potential to cause degradation of the area and therefore impact on the environmental values of the local area. Potential impacts as a result of weed infestations may be minimised by the implementation of a weed management condition.

Based on the above, the proposed clearing is at variance to this Principle.

Methodology GIS Database:
- DEC Tenure

(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 application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). The nearest PDWSA is the Ravensthorpe Catchment Area located approximately 83 kilometres south east of the application area. At this distance the proposed clearing is considered unlikely to impact on the quality of water within the Ravensthorpe Catchment Area.

There are no permanent wetlands or watercourses within the application area, however the application area lies within a non-perennial lake (GIS Database). The application area experiences an average annual rainfall of approximately 342.3 millimetres and an average annual evaporation rate of approximately 2,000 millimetres (BoM, 2013; GIS Database). Surface water flow is likely to be low during normal seasonal rains, hence surface water within the application area is likely to evaporate quickly.

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

Methodology BoM (2013)
GIS Database:
- Evaporation Isopleths
- Hydrography, linear
- 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

The application area experiences an average annual rainfall of approximately 342.3 millimetres and an average annual evaporation rate of approximately 2,000 millimetres (BoM, 2013; GIS Database). Surface water flow is likely to be low and relatively short lived during normal seasonal rains. Additionally, the small scale (6 hectares) and the purpose (rehabilitation) of the proposed clearing renders it unlikely to cause, or exacerbate, the incidence or intensity of flooding.

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

Methodology BoM (2013)
GIS Database:
- Evaporation Isopleths

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

Comments

There are two Native Title Claims (WC00/7 and WC03/6) over the area under application (GIS Database). These claims have been registered with the National Native Title Tribunal and Filed at the Federal Court, respectively, on behalf of the claimant groups. However, the mining tenure 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 is one registered Aboriginal Site of Significance within the application area (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of 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 on 14 January 2013 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the proposed clearing.

- Methodology** GIS Database:
- Aboriginal Sites of Significance
 - Native Title Claims – Registered with the NNTT
 - Native Title Claims – Filed at the Federal Court

4. References

- BoM (2013) BOM Website - Climate statistics for Australian locations, Averages for Lake King Weather Station. Available online at: <http://www.bom.gov.au/climate/data/> Accessed on 30 January 2013.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management.
- DEC (2013) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>
- 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.
- Government of Western Australia (2011) 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- McCawley, B. (2012) Rehabilitation Plan – Lake Camm Gypsum Project – M70/208. Unpublished report prepared for Trevor and Jan McLean dated November 2012.
- Rick, A. (2012) Plant Species Growing on Gypsum Mine M70/208 Lake Camm. Unpublished report prepared for Trevor McLean by Anne (Coates) Rick.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), Western Australia
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DoE	Department of Environment (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water
EP Act	Environmental Protection Act 1986, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
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 Act	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

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.
- P2 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.
- 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:

- (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.

CD

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 within a period of 5 years.