



1. Application details

1.1. Permit application details

Permit application No.: 1585/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: **OMG Cawse Pty Ltd**

1.3. Property details

Property: M24/517
M24/519
M24/224
Local Government Area: City Of Kalgoorlie/Boulder
Colloquial name: Mining Lease 24/224 - Cawse Nickel Operations

1.4. Application

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

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 located within the project area has been broadly mapped as Beard vegetation Association 2901 and is described as: Mosaic: medium woodland; <i>Allocasuarina cristata</i> & Goldfields Blackbut/ Shrublands; <i>Acacia quadrimarginea</i> thicket.	The proposed clearing is for the relocation of powerlines within the existing Cawse Nickel Operations Project Area located approximately 55 kilometres North West of Kalgoorlie. A corridor 880 metres long by 20 metres wide is proposed to be cleared to allow the relocation of the existing powerlines.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The vegetation condition is based on the Keighery (1994) vegetation condition scale and from aerial and ground photography as well as an assessment provided by Cawse OMG. At the completion of the mining operations the powerlines, posts and wiring will be removed. Following normal mining operating practice topsoil will be spread back on the cleared corridor which will be cross ripped and seeded with local native species (OMG Cawse 2006).

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 proposal is located within the Eastern Goldfields (COO3) Interim Biogeographic Regionalisation of Australia (IBRA) subregion (GIS Database). It is also located close to the boundary of the Eastern Murchison (MUR 1) IBRA subregions (GIS Database). The biodiversity values of the Eastern Goldfields IBRA subregion were assessed by Cowan (2001a). The proposal is not located within any of the ecosystems at risks listed for both IBRA subregions (Cowan 2001a and 2001b). The proposed clearing is located in an active mine site. Aerial imagery provided by the proponent as well as other aerial imagery available to DoIR both show that the proposed clearing area has been heavily impacted by the existing mining activities nearby (OMG Cawse 2006, GIS Database). Due to the degraded nature of the native vegetation present within the proposed clearing area, it is unlikely that the proposed clearing will result in the clearing of native vegetation that has higher biodiversity attributes than that of the surrounding undisturbed vegetation.

Based on the above, the proposal is unlikely to be at variance to this principle.

Methodology Cowan (2001a)
Cowan (2001b)
GIS Database:
Bardoc 1.4m Orthomosaic-DLI 2002

(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

There are no known records of fauna of conservation significance within 10 kilometres of the proposed clearing area (GIS Database). The clearing of 1.55 hectares of degraded native vegetation in the middle of an active mine site is unlikely to impact on fauna of conservation significance, or constitute the removal of habitat that is significant to fauna in the local area.

Based on the above, the proposal is unlikely to be at variance to this principle.

Methodology GIS Database:
Declared Rare and Priority Fauna CALM 01/07/05

(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

The nearest known record of flora of conservation significance is the Priority 1 listed species *Eremophila praecox*, located approximately 28 kilometres to the south of the proposed clearing area (GIS database). There is no reason to believe that flora of conservation significance occurs within the proposed clearing area. The clearing of 1.55 hectares of degraded native vegetation in the middle of the Cawse Nickel active mine site is unlikely to constitute the removal of habitat that is significant to flora of conservation significance.

Based on the above, the proposal is unlikely to be at variance to this principle.

Methodology GIS database:
Declared Rare and Priority flora list CALM 01/07/05

(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 Eastern Goldfields IBRA subregions (Cowan 2001a). No known TEC's are located in the vicinity of the proposed clearing (GIS database). The proposal is not located within any of the ecosystems at risk mentioned in Cowan (2001a, 2001b).

Based on the above, the proposal is unlikely to be at variance to this principle.

Methodology Cowan (2001a)
Cowan (2001b)
GIS Database:
Threatened Ecological Communities CALM 12/04/05

(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 area proposed to be cleared does not form a significant remnant of native vegetation. The vegetation association proposed to be cleared is classified as vegetation association 2901 (GIS database). Approximately 39,900 hectares or 100 % of vegetation association 2901 remains (Shepherd et al. 2001). The proposed clearing will not reduce that vegetation association current occurrence below threshold levels (30 %) where that vegetation association is considered vulnerable (Department of Natural Resources and Environment (2002).

Based on the above, the proposal is not a 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 at variance to this Principle

The nearest watercourse in the local area is a minor, non-perennial watercourse located approximately 200 metres from the proposed clearing permit boundary (GIS Database). There is no riparian vegetation or communities that are dependent on groundwater within the proposed clearing permit area.

Based on the above, the proposal is not at variance to this principle.

Methodology GIS Database:
Hydrography Linear DoE 1/2/04

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

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

The proposed clearing area is characterised by flat topography with gradients of about 1 % across the area (GIS Database). The proposal is located in the middle of an active minesite. Based on the small scale of the clearing proposed, flat topography and existing established environmental practices, it is unlikely that the proposal will increase wind or water erosion of the soil on or off the site. The small area proposed to be cleared is unlikely to result in waterlogging or land salinisation on or off site.

Based on the above, the proposal is unlikely to be at variance to this principle.

Methodology GIS Database:
Linear Hydrography DoE 1/2/04
Topographic Contours (Statewide) DOLA 19/09/02

(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 likely to be at variance to this Principle

The nearest conservation area is the Clear and Muddy Lake 'C' class Nature Reserve located approximately 27 kilometres to the west of the proposed clearing permit area (GIS Database). Based on the distance separating this proposal from the nearest conservation area it is unlikely that the proposal result in detrimental impacts to that conservation area.

Based on the above, the proposal is not likely to be at variance to this principle.

Methodology GIS Database:
CALM managed land and waters CALM 1/7/05

(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 clearing is not located within a proposed Drinking Water Supply Area (GIS Database). The nearest minor non perennial watercourse is located approximately 200 metres away from the proposed clearing area (GIS Database). Given the disturbed nature of the local area, the distance between the proposal and the nearest watercourse and the small scale of the clearing proposed it is unlikely that the proposal will significantly increase sedimentation or erosion of that watercourse. The small scale of the clearing is unlikely to cause any significant changes to water tables in the area.

There are no known groundwater dependent ecosystems located in the area which could possibly be impacted by the proposed clearing.

Based on the above, the proposal is unlikely to be at variance to this principle.

Methodology GIS Database:
Linear Hydrography DoE 1/2/04
Public Drinking Water Supply Areas DoE 7/2/2006

(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 nearest creekline to the proposal is a minor, non perennial watercourse located approximately 200 metres from the proposed clearing (GIS Database). The catchment area of that creekline is estimated by the assessor to be at least 400 hectares based on the location of creeklines and contours available (GIS Database). The

small scale of the clearing involved which is significantly less than the size of the estimated creekline catchment itself, is unlikely to lead to incremental increases in peak flood height or duration of the flood peak of watercourses in the area.

Based on the above, the proposal is unlikely to be at variance to this principle.

Methodology GIS Database:
Linear Hydrography DoE 1/2/04
Topographic Contours (Statewide) DOLA 19/09/02

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

Comments

There are two Native Title Claims (WC 98_027 & WC 99_029) over the area under application (GIS Database). However, the mining leases have been granted, and the clearing is for a purpose consistent with the lease, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no known registered sites of Aboriginal significance located within the area under application (GIS database). It is the proponent's responsibility to comply with the *Aboriginal Act 1972* and to ensure that no site of Aboriginal significance is damaged through the clearing process.

The proposed clearing is located in part on two Crown Reserves 17774 and 16555 vested with the Waters and Rivers Commission (GIS Database). In a letter dated 5th December 2006, the Department of Water stated to OMG Cawse that it had no objection in principle to the clearing of land to install a power line corridor through a portion of both reserves 17774 and 16555 (Department of Water 2006).

Methodology Department of Water (2006)
GIS Database:
Sites of Aboriginal Significance DIA
Native Title Claims-DLI 19/12/04

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Comment / recommendation
Mineral Production	Burning	1.55	Decision Grant The proposal has been assessed assessable criteria and is either not at variance or unlikely to be at variance to any of the clearing principles. The assessor recommends that the permit be granted. The proponent is bound to rehabilitate the landscape according to conditions enforced under the <i>Mining Act 1978</i> .

5. References

- Cowan M (2001a) Coolgardie 3 (COO3 Eastern Goldfields subregion) Subregional description and biodiversity values, dated August 2001. 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.
- Cowan M (2001b) Murchison 1 (MUR 1 East Murchison subregion) Subregional description and biodiversity values, dated September 2001. 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 Conservation and Land Management (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions.
- 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.
- Department of Water (2006) Letter to Cawse OMG in relation to permission to disturb water reserves for CPS 1585/1. Unpublished letter dated 5th December 2006.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- OMG Cawse Pty Ltd Cawse Nickel Operation (2006) Mining proposal to clear power line corridor on ML24/517, ML24/519 & ML24/224. East Side Bunyip Pit. Unpublished report dated August 2006.
- 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

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.
DoIR	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.
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.