



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2362/2
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Iluka Resources Limited**

1.3. Property details

Property: *Mineral Sands (Eneabba) Agreement Act 1975*, Mineral Lease 267SA
Local Government Area: Shire of Carnamah & Shire of Three Springs
Colloquial name: Depot Hill/Brandy Flats

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 17 May 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, and are a useful tool to examine the vegetation extent in a regional context. Three Beard vegetation associations were located within the application area. These were:

49 Shrublands; mixed heath;

378 Shrublands; scrub-heath with scattered *Banksia spp*, *Eucalyptus tottiana* & *Xylomelum angustifolium* on deep sandy flats; and

379 Shrublands; scrub-heath on lateritic sandplain.

Woodman Environmental Consulting (2007) conducted vegetation mapping of the proposed clearing area in November 2007. Through this survey they identified two Floristic Community Types which occur in the application area:

1) Woodland to tall shrubland dominated by *Xylomelum angustifolium* and/or *Banksia spp*. on grey sand on dune crests and upper slopes; and

2) Low shrubland of mixed species including *Mesomelaena stygia sub-sp. deflexa*, *Georgeantha hexandra*, *Hakea spathulata* and *Cassytha glabella* on white-grey sand over lateritic gravels.

Clearing Description

Iluka Resources Ltd has applied to clear 39 hectares of native vegetation, within a total application area of approximately 263 hectares. The Project is located 4.5 kilometres north-east of the town site of Eneabba within the *Mineral Sands (Eneabba) Agreement Act 1975* Mineral Lease 267SA (Iluka Resources Ltd, 2008), in the Geraldton Sandplains Interim Biogeographical Regionalisation for Australia (IBRA) bioregion (Desmond & Chant, 2001).

The application area is divided into a northern section referred to as the Brandy Flats application area, and a series of closely bunched areas in the south-east called the Depot Hill application area.

The proposed clearing is for mineral sands mining as a continuation of the existing mining activities at Iluka Resources Ltd's Eneabba mineral sands operation. Clearing will be conducted mechanically with a lowered blade, in accordance with methods already in practice at the mine site.

Vegetation Condition

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

Comment

Sand mining is not a new venture in the Eneabba area. The Depot Hill/Depot Hill East and some of the Brandy flats area were originally mined by the Jennings Mining Group in the late 1970s (Iluka Resources Ltd, 2008). Once mining operations ceased there was little attempt to rehabilitate the area. This has left areas which were previously mined in a degraded state.

Clearing Permit CPS 2362/1 was granted by the Department of Mines and Petroleum (DMP) on 17 May 2008 and
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authorised the clearing of up to 39 hectares of native vegetation for the purpose of extraction of mineral sands.

3. Assessment of application against clearing principles

Comments

On 11 January 2013, Iluka Resources Limited applied to amend clearing permit CPS 2362/1. The amendment is to change the expiration date of the permit to 17 May 2018. As the amendment is only for administrative purposes, the environmental impacts will not change and the assessment of the clearing principles is consistent with the assessment in clearing permit decision report CPS 2362/1.

Methodology Iluka Resources (2008)
Woodman Consulting (2007)

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

Comments

There is one native title claim over the application area (GIS Database). This claim (WC98_057) has been registered with the National Native Title Tribunal on behalf of the claimant group (GIS Database). However, 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 are no known sites of Aboriginal significance in the vicinity of 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.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims – Registered with the NNTT

4. References

- Desmond, A & Chant, A. (2001) Geraldton Sandplains 3 (GS3 – Lesueur Sandplain Subregion) in a Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002. Report Published by CALM. Perth, Western Australia.
- Iluka Resources (2008) Eneabba Mineral Sands Mine, Native Vegetation Clearing Proposal (Depot Hill/Brandy Flats), unpublished report, Perth, Western Australia.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Woodman Consulting (2007) Declared Rare Flora Search – Adamson West and Depot Hill/Brandy Flats, prepared for Iluka Resources Ltd 2008.

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

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.

Principles for clearing native vegetation:

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (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.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare 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.
- (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.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (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.
- (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.
- (j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.