



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5256/1
Permit type: Purpose

1.2. Proponent details

Proponent's name: Argyle Diamonds Limited

1.3. Property details

Property: Mining Lease 80/114
Miscellaneous Licence 80/1
Local Government Area: Shire of Wyndham-East Kimberley
Colloquial name: Bow River Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 15 November 2012

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):

833: Grasslands, short bunch grass savanna sparse low tree; scattered snappy gum over arid short grass on plains.

A flora and vegetation survey of the application area was conducted by Mattiske Consulting (2006) in July 2006. This survey identified the following four vegetation communities within the application area:

1: Woodland of *Eucalyptus camaldulensis* var. *obtusata* and *Melaleuca leucadendra* with *Terminalia cunninghamii*, *Terminalia hadleyana* and over *Acacia holosericea*, *Buchanania obovata*, *Ficus coronulata* and *Cynodon dactylon* on sands in major drainage channels.

2: Open Woodland of *Bauhinia cunninghamii* with *Corymbia opaca* and *Hakea arborescens* over *Jatropha gossypifolia*, *Carissa spinarum*, *Chrysopogon fallax* and *Aristida holathera* on red clay loams.

3: Tall shrubland of *Acacia holosericea* and emergent *Eucalyptus pruinosa* over *Carissa spinarum* and *Triodia bitextura* on red clay loams.

4: Hummock grassland of *Triodia bitextura* with *Aristida latifolia*, *Enneapogon purpurascens*, *Sporablous australasicus* and emergent *Corymbia aspera* and *Eucalyptus brevifolia* on red clay loam.

Clearing Description Argyle Diamonds has applied to clear up to 10.62 hectares of native vegetation, part of which has been previously disturbed, for the purpose of sand excavation. Sand will be used for the manufacture of concrete and application activities at the Argyle Diamonds surface mining operations and construction/operation of the underground block cave mine.

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

Comment The application area is located within the Ord Victoria Plains bioregion of Western Australia and is situated approximately 13 kilometres south of the Argyle Diamond Mine.
Part of the application area has previously been cleared under clearing permit CPS 2236/1. This cleared area has some regrowth and therefore Argyle Diamonds propose to re-clear this area.

3. Assessment of application against clearing principles

Comments

Argyle Diamonds has applied to clear approximately 10.62 hectares of native vegetation, part of which has been previously cleared. The application area covers an area previously cleared under the now expired clearing permit CPS 2236/1.

No Threatened or Priority Flora species are known to occur within the application area (GIS Database). A flora and vegetation survey of the application area conducted by Mattiske Consulting (2006) did not identify any Threatened or Priority Flora species within the application area.

According to available databases and a flora and vegetation survey of the application area, no Threatened or Priority Ecological Communities occur within the application area (GIS Database; Mattiske Consulting, 2006).

The application area is within riparian vegetation associated with the Bow River. This vegetation is not considered to be locally or regionally significant and the presence of six introduced species, including an infestation of *Cynodon dactylon* and Declared Plant species *Jatropha gossypifolia*, further reduces the significance of this vegetation.

Mattiske Consulting (2006) identified the presence of *Jatropha gossypifolia*, a Declared Weed under the *Agriculture and Related Resources Protection Act 1976*, within the application area. This species is classed as Priority 1 for the whole of Western Australia and Priority 4 north from the 26th Parallel. Priority 1 prohibits the introduction of a plant into, or movement of the plant within, an area. Priority 4 requires the spread of plant beyond where it currently occurs to be prevented. This species was again recorded within the application area by Department of Mines and Petroleum Officers during an inspection of expired clearing permit CPS 2236/1 which underlies the application area. A condition was placed on clearing permit CPS 2236/1 to destroy and prevent seed set of this species within 50 metres of roads and high water mark on waterways. Potential spread of *Jatropha gossypifolia* may be minimised by the re-implementation of this condition.

Two conservation significant fauna species, Freshwater Crocodile; *Crocodylus johnstoni* (Schedule 4) and Lakeland Downs Mouse; *Leggadina lakedownensis* (Priority 4), have been identified within the Argyle Diamond lease area (Argyle Diamonds, 2007). Given the small scale of the proposed clearing (10.62 hectares), part of which has been previously cleared under clearing permit CPS 2236/1, it is considered unlikely that the proposed clearing will significantly impact upon these species or the fauna habitats present within the application area.

The application area is located within the O'Donnell land system which has a moderate susceptibility to erosion within interfluvies and drainage floors (GIS Database; Payne and Schoknecht, 2011). Potential erosion impacts as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

The assessment of the application identified that the proposed clearing is at variance to Principle (f), may be at variance to Principle (g), is not likely to be at variance to Principles (a), (b), (c), (d), (i), and (j), and is not at variance to Principles (e) and (h).

Methodology Argyle Diamonds (2007)
Mattiske Consulting (2006)
Payne and Schoknecht (2011)

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

Comments

There are no Native Title Claims over the area under application (GIS Database). 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 are no registered Aboriginal Sites 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 17 September 2012 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received in relation to this application advising no objection to the proposed clearing.

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

4. References

- Argyle Diamonds (2007) DOIRN Bow River Sand Mining Proposal – Mining Lease M80/114 East Kimberley, Western Australia. Unpublished report dated November 2007.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske Consulting (2006) Flora and Vegetation Survey of Sand Mining Lease M80/114 & Access Route L80/1 Bow River. Unpublished report dated October 2006.
- Payne and Schoknecht (2011) Technical Bulletin No. 98 – Land Systems of the Kimberley Region, Western Australia. Department of Agriculture and Food, Western Australia.

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.

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.