



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5675/2
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Phoenix Gold Limited

1.3. Property details

Property: Mining Lease 16/22
Mining Lease 16/24
Mining Lease 16/40
Mining Lease 16/140
Mining Lease 16/152
Mining Lease 16/179
Mining Lease 16/189
Mining Lease 16/195
Mining Lease 16/198
Mining Lease 16/526
Mining Lease 16/533
General Purpose Lease 16/18

Local Government Area: Shire of Coolgardie
Colloquial name: Castle Hill

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
390.1		Mechanical Removal	Mineral Production and Associated Infrastructure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 5 June 2014

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 useful to look at vegetation in a regional context. The following Beard vegetation association is located within the application area (GIS Database):

468: Medium woodland; salmon gum & goldfields blackbutt.

A flora and vegetation survey was undertaken over the majority of the application area by Botanica Consulting (Botanica) on 6 and 7 November 2012 (Botanica, 2013). A portion in the south of the application area (approximately 40 hectares) was not covered by Botanica but has been covered by a previous flora survey by Jims Seeds, Weeds and Trees in December 2004. Botanica identified the following eight vegetation communities within the application area:

1. Scrub of *Acacia* sp. narrow phyllode over low scrub of *Eremophila alternifolia*.
2. Low woodland of *E. campaspe* and *E. salmonophloia* over low scrub of *Atriplex nummularia*, *Eremophila dempsteri* and dwarf scrub of *Atriplex vesicaria*.
3. Open low woodland of *E. campaspe* over low scrub of *Eremophila dempsteri* and dwarf scrub of *Atriplex vesicaria*.
4. Low woodland of *E. clelandii* over scrub of *Acacia* sp. narrow phyllode and low scrub of *Acacia erinacea*, *Atriplex vesicaria* and *Eremophila pustulata*.
5. Low woodland of *E. campaspe* over low scrub of *Eremophila scoparia* and dwarf scrub of *Atriplex vesicaria*.
6. Very open shrub mallee of *E. griffithsii* over low scrub of *Dodonaea lobulata* and *Eremophila scoparia* over dwarf scrub of *Scaevola spinescens*.

7. Scrub of *Allocasuarina acutivalvis*/*Casuarina pauper* over low scrub of *Philtrotheca brucei* and dwarf scrub of *Prostanthera grylloana*.

8. Low woodland of *E. ravida* over low scrub of *Atriplex nummularia*/*Eremophila scoparia* over dwarf scrub of *Atriplex vesicaria*.

Jims Seeds, Weeds and Trees (2004) identified the following three vegetation communities in the portion of the application area not covered by Botanica (2013):

9. Granite Sand Flats: Granite sand flats consist of flat stretching plains of coarse red granite sand. The vegetation is mildly dense and consists of ground hugging shrubs as well as taxa exceeding 2 metres in height including *Acacia acuminata* and *Allocasuarina pauper*. *Acacia acuminata* was the dominant species. Understorey shrubs included: *Dodonaea lobulata*, *Eremophila willsii*, *Maireana sedifolia*, *M. triptera* and *Olearia muelleri*.

10. Basalt Hills: This vegetation unit comprised of hills, with an exposed surface of basalt rock, standing up to 30 metres in elevation with rock face inclines ranging from 5 degrees to 30 degrees. Many Eucalypt trees were dominant within this unit including *E. campaspe*, *E. celastroides*, *E. clelandii*, *E. oleosa*, *E. salmonophloia* and *E. transcontinentalis*. Saltbush and bluebush species including *Atriplex nummularia*, and *Maireana sedifolia*, were among the understorey taxa.

11. Salmon Gum Broad Valleys: The dominant species within this unit was *Eucalyptus salmonophloia*. Understorey plants included *Atriplex nummularia*, *Eremophila scoparia*, *Maireana sedifolia* and *Ptilotus obovatus*. Larger shrubs over two metres in height included *Acacia acuminata*, *A. tetragonophylla* and *Allocasuarina pauper*.

Clearing Description

Castle Hill Project.
Phoenix Gold Limited proposes to clear up to 390.1 hectares of native vegetation within a boundary of approximately 597 hectares for the purpose of mineral production and associated infrastructure. The project is located approximately 35 kilometres north, north-west of Coolgardie within the Shire of Coolgardie.

Vegetation Condition

Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994);

To

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

Comment

The purpose of the application is to develop the Castle Hill area as part of the Castle Hill Project (Stage 1). The proposed clearing will be undertaken for an open pit, integrated waste landform (a tailings storage facility encased in waste rock), mill, run of mine pad, administration infrastructure, laydown area, workshop, pond, waste rock landform, heap leach, haul roads and low grade stockpiles and landfill facility.

Vegetation condition was determined by Botanica (2013). A review of aerial imagery indicates vegetation in the portion of the application area not covered by Botanica (2013) is likely to be in a similar condition.

3. Assessment of application against clearing principles

Comments

Phoenix Gold Limited has applied to increase the area authorised to clear from 379.5 to 390.1 hectares and expand the permit boundary from approximately 586 hectares to 597 hectares. This includes the addition of Mining Lease 16/533.

Flora and vegetation surveys have been undertaken in the area by Botanica in November 2012 (Botanica, 2013) and Jims, Seeds, Weeds and Trees in December 2004 (Jims, Seeds, Weeds and Trees, 2004). A Level 1 fauna survey by Greg Harewood was also undertaken and included the majority of the CPS 5675/1 permit area (Harewood, 2013). The vegetation communities and fauna habitats present within the increased permit boundary are the same as those described in Clearing Permit Decision Report CPS 5675/1.

No Threatened Ecological Communities or Priority Ecological Communities and Threatened or Priority Flora are known to occur or have been recorded during the flora and vegetation surveys within the additional permit boundary area (Botanica, 2013; GIS Database).

No conservation significant fauna species in addition to those identified in the Clearing Permit Decision Report CPS 5675/1 have been recorded in the extended permit boundary area (Harewood, 2013). The assessment of CPS 5675/1 identified the potential for Malleefowl (*Leipoa ocellata*) (Vulnerable; Schedule 1) to utilise the CPS 5675/1 permit area. Potential impacts to the Malleefowl as a result of the proposed clearing may be minimised by the implementation of a fauna management condition.

There are several minor, non perennial watercourses that intersect the CPS 5675/1 permit area including one that crosses into the extended permit boundary area (GIS Database). Potential impacts to watercourses may be minimised by the implementation of a watercourse management condition.

The amendment is not likely to have any significant environmental impacts and the assessment of the clearing principles is consistent with the assessment in clearing permit decision report CPS 5675/1.

Methodology Botanica (2013)

Harewood (2013)
Jims, Seeds, Weeds and Trees (2004)
GIS Database:
- Hydrography, linear
- Threatened Ecological Sites Buffered
- Threatened and Priority Flora

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

Comments

There is one native title claim over the area under application: WC2013/009 (GIS Database). This claim has been filed at the federal court on behalf of the claimant group. 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*.

According to available databases, 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 Regulation, Department of Parks and Wildlife 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 12 May 2014 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received.

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

4. References

- Botanica (2013) Level 2 Flora & Vegetation Survey for the Castle Hill Project Tenement: P16/1961, P16/2419, P16/2426, P16/2428, M16/22, M16/24, M16/40, M16/43, M16/152, M16/179, M16/189, M16/195, M16/198 & M16/526. Unpublished report prepared by Botanica Consulting for Phoenix Gold Limited dated January 2013.
- Harewood (2013) Terrestrial Fauna Assessment (Level 1) of Castle Hill Project Area. Unpublished report prepared by Greg Harewood for Phoenix Gold Limited dated February 2013.
- Jims Seeds, Weeds and Trees (2004) Flora Survey for Cazaly Resources of the Kunanalling Project. Unpublished report prepared by Jims Seeds, Weeds and Trees Pty Ltd for Cazaly Resources dated December 2004.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, 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.