



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6832/2
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Big Bell Gold Operations Pty Ltd

1.3. Property details

Property: Mining Lease 51/6
Mining Lease 51/12
Mining Lease 51/31
Mining Lease 51/33
Mining Lease 51/75
Mining Lease 51/96
Mining Lease 51/203
Mining Lease 51/321
Mining Lease 51/486
Mining Lease 51/496
Mining Lease 51/523
Mining Lease 51/572
Mining Lease 51/575
Mining Lease 51/581
Mining Lease 51/652
Mining Lease 51/793
Mining Lease 51/794
Local Government Area: Shire of Meekatharra
Colloquial name: Lake Annean Exploration

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 22 December 2016

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 four vegetation associations have been mapped within the application area (GIS Database):

18: Low woodland; mulga (*Acacia aneura*);

39: Shrublands; mulga scrub;

125: Bare areas; salt lakes; and

1128: Mosaic: Succulent steppe with open scrub; scattered *Acacia sclerosperma* & bowgada over saltbush & bluebush/Succulent steppe; samphire.

A Level 1 flora survey of the application area was undertaken by MWH between 14 and 17 July 2015. The following vegetation associations were recorded within the permit area (MWH, 2015):

VA01: Scattered shrubs of *Maireana pyramidata* and *Cratystylis subspinescens* over low chenopod shrubland of *Maireana tomentosa*, *Maireana triptera* and *Dissocarpus paradoxus* over scattered low tussock grassland of *Aristida contorta* on red/brown sandy, clay loam.

VA02a: Scattered tall shrubs of *Acacia pteraneura* and *Acacia tetragonophylla* over scattered mid shrubs of *Senna* sp. Meekatharra (E. Bailey 1-26) and *Senna artemisioides* subsp. *helmsii* over open low shrubland of *Maireana triptera*, *Eremophila ? jucunda* subsp. *jucunda* and *Ptilotus obovatus* over very open low tussock grassland of *Aristida contorta* on red/brown loamy sand with stony surface.

VA02b: Scattered tall shrubs of *Acacia pteraneura* over open low chenopod shrubland of *Maireana pyramidata*, *Maireana triptera* and *Rhagodia eremaea* over very open low tussock grassland of *Aristida contorta* on red/brown stony, loamy sand with stony surface.

VA03: Mosaic of mid to tall samphire shrubland dominated by *Tecticornia* species on moist clay.

VA04: Open tall shrubland to scattered tall shrubs of *Acacia fusca* and occasional *Acacia synchronicia* over open mid shrubland of *Eremophila latrobei* subsp. *latrobei*, *Senna* sp. Meekatharra (E. Bailey 1-26) and *Eremophila* spp. over scattered low shrubs of *Ptilotus obovatus* and *Solanum lasiophyllum* over open low chenopod shrubland of *Maireana triptera* and *Sclerolaena* spp. over very open low tussock grassland of *Aristida contorta* and *Enneapogon caeruleus* on skeletal red/brown loamy sand with ironstone outcropping.

VA05: Open tall shrubland to isolated patches of tall shrubs of *Hakea preissii* and *Acacia sclerosperma* subsp. *sclerosperma* over open mid shrubland to scattered mid shrubs of *Dodonaea viscosa* subsp. *angustissima*, *Maireana pyramidata* and *Cratystylis subspinescens* over scattered mid chenopod shrubs of *Maireana triptera* and *Atriplex vesicaria* over scattered low tussock grassland of *Aristida contorta* on red/orange loamy sand.

VA06: Scattered mid shrubs of *Maireana pyramidata* and *Eremophila longifolia* over low chenopod shrubland to low open chenopod shrubland of *Salsola australis*, *Sclerolaena diacantha* and *Dissocarpus paradoxus* over scattered low herbs of *Swainsona paradoxa* on red/orange fine clayey loam.

VA07a: Scattered low trees of *Acacia fusca* over open tall shrubland to isolated patches of tall shrubs of *Acacia sclerosperma* subsp. *sclerosperma* and *Hakea preissii* over open mid shrubland of *Eremophila* sp. B, *Senna artemisioides* subsp. *filifolia* and *Senna artemisioides* subsp. *helmsii* over scattered low shrubs of *Ptilotus obovatus* on orange/red clayey, sand.

VA07b: Scattered low trees of *Acacia pteraneura* over scattered tall shrubs of *Hakea preissii* over mid shrubland of *Senna* sp. Meekatharra (E. Bailey 1-26), *Senna* sp. Billabong (J.D. Alonzo 721) and *Eremophila* sp. A on red/orange loamy sand.

VA07c: Open tall shrubland of *Acacia fusca* over open mid shrubland of *Eremophila* sp. A over scattered mid chenopod shrubs of *Salsola australis*, *Maireana pyramidata* and *Maireana tomentosa* over scattered mid tussock grasses of *Eragrostis* sp. on red loamy sand.

VA08: Isolated patches of mid shrubs of *Acacia sclerosperma* subsp. *sclerosperma* over scattered low shrubs to open low shrubland of *Frankenia laxiflora*, *Sclerolaena fimbriolata* and *Enchylaena tomentosa* var. *tomentosa* over open low tussock grassland of *Eragrostis eriopoda* and *Enneapogon caeruleus* on orange/red loamy sand with gypsum outcropping.

VA09: Open tall shrubland of *Melaleuca stereophloia* over open mid samphire shrubland of *Tecticornia* ? sp. Dennys Crossing (K.A. Shepherd & J. English KS 552) over scattered low shrubs of *Frankenia laxiflora* on red/orange clayey sand.

VA10: Scattered mid shrubs of *Lawrenia helmsii* and *Maireana pyramidata* over low chenopod shrubland of *Atriplex vesicaria* and *Maireana amoena* on red/brown clayey sand.

VA11: Open tall shrubland of *Acacia fusca* over scattered mid shrubs to open mid shrubland of *Eremophila macmillaniana* and *Eremophila latrobei* subsp. *latrobei* over open low shrubland of *Ptilotus obovatus*, *Solanum lasiophyllum* and *Maireana pyramidata* over very open low tussock grassland of *Aristida contorta* and *Enneapogon caeruleus* on red/orange/white skeletal sandy loam with quartz outcropping.

Clearing Description

Lake Annean Exploration.
Big Bell Gold Operations Pty Ltd proposes to clear up to twelve hectares of native vegetation within a boundary of approximately 1,573.36 hectares for the purposes of mineral exploration. The project is located approximately 33.5 kilometres south-west of Meekatharra within the Shire of Meekatharra.

Vegetation Condition

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994);

to

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).

Comment

The vegetation condition was derived from a report prepared by MWH (2015). Rainfall in March provided suitable conditions for the emergence of ephemeral species and resulted in a number of taxa displaying material to allow suitable identification.

Clearing permit CPS 6832/1 was granted on 30 December 2015 authorising the clearing of two hectares within a boundary of approximately 1,573.36 hectares. Big Bell Gold Operations Pty Ltd has applied to amend CPS 6832/1 to increase the amount of clearing authorised to 12 hectares. Miscellaneous Licence 51/18 has been removed from the permit area as the purpose of the licence is not compatible with mineral exploration activities.

3. Assessment of application against clearing principles

Comments

Big Bell Gold Operations Pty Ltd has applied to increase the amount of clearing authorised by 10 hectares to allow for further exploration activities.

The permit boundary may contain habitat that supports the Priority 3 flora species *Tecticornia cymbiformis* (MWH, 2015). This species is known from four disjunct populations within three separate bioregions (Western Australian Herbarium, 2016). The increased clearing of 10 hectares of this species' habitat is not likely to have a significant impact on this species, however, clearing within the samphire habitat should be minimised wherever possible.

The permit area is located on the edge of Lake Annean (GIS Database). Lake Annean is known to support a number of protected migratory waterbirds. The samphire habitat within the permit area would provide foraging and breeding habitat for bird species when the lake is in flood. There is approximately 475.29 hectares of samphire habitat mapped within the permit area (MWH, 2015). The clearing of an additional 10 hectares of native vegetation is not likely to have a significant impact on breeding habitat for migratory birds at Lake Annean. However, clearing within the samphire habitat should be minimised to reduce any potential impacts on waterbirds.

The permit boundary also contains habitat for the Priority 1 skink species *Lerista eupoda* (MWH, 2015). This species is restricted to the Murchison region in an area between Meekatharra and Cue (Department of Parks and Wildlife, 2016). This skink was observed within dunefields habitat within the permit boundary. This habitat is more limited within the permit area with a total of 161.61 hectares of dunefields habitat mapped during the fauna survey (MWH, 2015). The exploration activities have not cleared any of the dunefield habitat to date and this habitat should be avoided where possible in the future. The proposed additional clearing has the potential to reduce the habitat for this species in the local area, however, it is not anticipated to have a significant impact on this species as a whole.

The permit area is situated over part of the non-perennial Lake Annean (GIS Database). Lake Annean is dry a majority of the time and fills every five to ten years. Lake Annean is listed in the Directory of Important Wetlands in Australia due to it being an important breeding area for waterbirds and a good example of a seasonal saline lake and marsh system (Department of the Environment, 2010). The permit area only covers a small portion of the lake and the proposed clearing will not have a significant impact on the hydrology and water quality of the lake.

The proposed amendment is unlikely to result in any significant change to the environmental impacts of the proposed clearing. The assessment against the clearing principles remains consistent with the assessment contained in decision report CPS 6832/1.

Methodology

Department of the Environment (2010)
Department of Parks and Wildlife (2016)
MWH (2015)

GIS Database:

- Hydrography, lakes
- Hydrography, linear
- Imagery

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

Comments

There is one Native Title Claim over the area under application (WC2004/010) (Department of Aboriginal Affairs, 2016). 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 is one registered Aboriginal Site of Significance within the application area (Department of Aboriginal Affairs, 2016). 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 21 November 2016 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the proposed clearing.

Methodology

Department of Aboriginal Affairs (2016)

4. References

- Department of Aboriginal Affairs (2016) Aboriginal Heritage Inquiry System. Department of Aboriginal Affairs. <http://maps.dia.wa.gov.au/AHIS2/> (Accessed on 1 December 2016).
- Department of the Environment (2010) Directory of Important Wetlands in Australia - Information Sheet, Anneen Lake. <http://www.environment.gov.au/cgi-bin/wetlands/report.pl>
- Department of Parks and Wildlife (2016) NatureMap. Department of Parks and Wildlife. <http://naturemap.dec.wa.gov.au> (Accessed on 1 December 2016)
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- MWH (2015) Lake Annean Flora and Fauna Assessment. Report prepared for Metals X Limited, by MWH Australia Pty Ltd, September 2015.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DPaW and DER)
DEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia
DPaW	Department of Parks and Wildlife, Western Australia
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
EPA	Environmental Protection Authority, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (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
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{DPaW (2015) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T	Threatened species: Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora). Threatened fauna is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the Wildlife Conservation Act. Threatened flora is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the Wildlife Conservation Act. The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.
CR	Critically endangered species Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
EN	Endangered species Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

- VU Vulnerable species**
Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
- EX Presumed extinct species**
Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.
- IA Migratory birds protected under an international agreement**
Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- CD Conservation dependent fauna**
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- OS Other specially protected fauna**
Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- P Priority species**
Species which are poorly known; or
Species that are adequately known, are rare but not threatened, and require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.
- P1 Priority One - Poorly-known species:**
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
- P2 Priority Two - Poorly-known species:**
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
- P3 Priority Three - Poorly-known species:**
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.
- P4 Priority Four - Rare, Near Threatened and other species in need of monitoring:**
(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.
(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for Vulnerable, but are not listed as Conservation Dependent.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

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.