



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7128/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Beatons Creek Gold Pty Ltd

1.3. Property details

Property: Mining Lease 46/10
Mining Lease 46/11

Local Government Area: Shire of East Pilbara

Colloquial name: Alluvial Operations Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 18 August 2016

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description The clearing permit application area has been broadly mapped as the following two Beard vegetation associations (GIS Database):

173: Hummock grasslands, shrub steppe, kanji over soft spinifex & *Triodia wiseana* on basalt; and

190: Hummock grasslands, sparse shrub steppe; *Acacia bivenosa* & *Acacia trachycarpa* over hard spinifex, *Triodia wiseana*, very poor rocky country on gneiss.

A flora and vegetation survey of the application area was undertaken in August 2014 (360 Environmental, 2016). Four vegetation communities were identified:

EIEvAtTeCi Scattered *Eucalyptus leucophloia* subsp. *leucophloia* and *Eucalyptus victrix* over open shrubland of *Acacia tumida* var. *pilbarensis* over very open grassland of *Triodia epactia* over scattered sedges of *Cyperus ixocarpus*;

EIAoAsAhTbTe Scattered low trees of *Eucalyptus leucophloia* subsp. *leucophloia* over low open shrubland of *Acacia orthocarpa*, *Acacia spondylophylla* and *Acacia hilliana* over open hummock grassland of *Triodia brizoides* and *Triodia epactia*;

EIAbTeTb Scattered low trees of *Eucalyptus leucophloia* subsp. *leucophloia* over scattered shrubs of *Acacia bivenosa* over hummock grassland of *Triodia epactia* and *Triodia brizoides*; and

Degraded: The remaining land within the application area is considered to be disturbed or bare of vegetation.

Clearing Description Alluvial Operations Project.
Beatons Creek Gold Pty Ltd (BCG) proposes to clear up to 5.7 hectares of native vegetation within a total boundary of approximately 17.22 hectares, for the purpose of mineral production. The project is located approximately 2 kilometres northwest of Nullagine, in the Shire of East Pilbara.

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

To

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

Comment Vegetation descriptions were derived from a report written by 360 Environmental (2016).

3. Assessment of application against clearing principles

Comments The application area is located within the Chichester subregion of the Pilbara Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). The Chichester subregion is characterised by undulating granite and basalt plains typically supporting a shrub steppe and hummock grasslands of *Acacia inaequilatera* over *Triodia wiseana*; and significant areas of basaltic ranges typically supporting tree steppes of *Eucalyptus leucophloia*. The hummock grasslands which host reptile and small mammal communities, and the cracking clay communities of the Chichester Range and Mungaroona Range are identified as areas of high species and ecosystem biodiversity within the subregion (CALM, 2002).

The proposed clearing of 5.7 hectares is for the alluvial scraping of seven creeklines in order for BCG to gain an understanding of the ore bodies characteristics in relation to processing and recovery (360 Environmental, 2016). The information obtained will be applied to a future mining proposal, the Paleoplacer Gold Project (360 Environmental). The proposed clearing will not occur in main watercourses or waterbodies such as the main creekline or nearby dam (GIS Database). The creeklines proposed to be cleared are comprised mainly of bare ground with scattered minimal vegetation. Whilst the proposed clearing is at variance to Principle (f), it is not expected to have a significant impact on watercourses, surface water quality or surface runoff due to its small scale (5.7 hectares).

The proposed clearing is located within a Schedule 1 Area, the Nullagine Public Drinking Water Source Area (PDWSA) (GIS Database). The Nullagine Water Reserve was gazetted under the *Country Areas Water Supply Act 1947* on 2 March 2001 (DoW, 2016). The section of the reserve in which the proposed clearing is to occur has been assigned as Priority 1 under the Water Source Protection Classification System (DoW, 2016). Advice from the Department of Water (DoW) was obtained regarding potential impacts to the PDWSA and creeklines. The DoW has stated that it is satisfied that the proposed clearing permit is unlikely to have a significant impact on the quality or quantity of groundwater, provided activities are carried out in accordance with DoW advice and guidelines (DoW, 2016). The DoW has produced a series of water quality protection notes and guidelines on various land uses and activities, including mining and mineral processing (DoW, 2016).

A Level 2 Flora and Vegetation survey was conducted in August 2014 over the larger Beatons Creek Project Area, which includes the application area (360 Environmental, 2016). The vegetation condition within the larger area ranged from Excellent to Degraded. The majority of the survey area was in excellent condition, while some areas had been previously disturbed by historical mineral exploration activities (360 Environmental, 2016). The vegetation associations recorded within the survey area are all widespread and typical of the Pilbara region (360 Environmental, 2016). Beard vegetation associations 173 and 190 have approximately 99% of pre-European vegetation remaining at the state and bioregional level (Government of Western Australia, 2014). Hence, the vegetation proposed to be cleared does not represent a significant remnant of vegetation in an area that has been extensively cleared.

No species of Threatened Flora were recorded during the flora and vegetation survey (360 Environmental, 2016). Three species of priority flora were recorded within the survey area; however none were located within the application area (360 Environmental, 2016). The application area is not within a Priority or Threatened Ecological Community (360 Environmental, 2016; GIS Database). The application area does not occur within a conservation area (GIS Database). The nearest conservation area is the DPaW managed former Meetheena Pastoral Lease located approximately 60 Kilometres northeast of the application area (GIS Database). The proposed clearing is unlikely to have impacts on this or any other conservation area.

Several weed species were recorded during the flora and vegetation survey (360 Environmental, 2016). Weeds have the potential to out-compete native flora and reduce the biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

A Level 2 fauna survey was conducted in August 2014 over the larger Beatons Creek Project Area, which includes the application area (360 Environmental, 2016). Three main fauna habitats were identified within the application area, drainage lines, hill slopes, and degraded mining areas (360 Environmental, 2016).

The drainage line habitat consists of mature eucalyptus trees which may act as a corridor for fauna. However, this habitat is considered well represented in the surrounding area and therefore the small scale of clearing proposed (5.7 hectares) is unlikely to have a significant impact on fauna habitat (360 Environmental, 2016). Degraded mining areas were either completely cleared or completely degraded and are unlikely to act as significant fauna habitat (360 Environmental, 2016). Hill slopes are considered to provide limited habitat to fauna in the area. Given the abundance of hill slope habitat in the surrounding area the proposed clearing is unlikely to have a significant impact (360 Environmental, 2016).

The following fauna species of conservation significance were recorded during the survey (360 Environmental, 2016):

- Black-lined Ctenotus (*Ctenotus nigrilineatus*) - Priority 1
- Rainbow Bee-Eater (*Merops ornatus*) - Migratory
- Northern Quoll (*Dasyurus hallucatus*) - Endangered
- Pilbara Leaf-nosed Bat (*Rhinonicteris aurantia*) - Vulnerable
- Western Pebble- mound Mouse (*Pseudomys chapmani*) - Priority 4

Given the small scale of the proposed clearing (5.7 hectares) and the abundance of suitable habitat in the surrounding area, there is unlikely to be a significant impact on the fauna species above.

The application area is mapped as occurring within the Capricorn Land System (GIS Database). The Capricorn Land System is described as hills and ridges of sandstone and dolomite, supporting hard and soft spinifex grasslands, which are generally resistant to erosion (Van Vreeswyk et al., 2004). The small area of proposed clearing (5.7 hectares) is not likely to result in appreciable land degradation.

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*, and the proposed clearing is not likely to be at variance with Principles (a), (b), (c), (d), (g), (h), (i), and (j), is at variance with Principle (f) and is not at variance to Principle (e).

Methodology 360 Environmental (2016)
DoW (2016)
Government of Western Australia (2014)
Van Vreeswyk (2004)

GIS Database:
- DPaW Tenure
- IBRA Australia
- Imagery
- Hydrography, linear
- Pre – European Vegetation
- Threatened and Priority Flora List
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers

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

Comments There are two native title claims (WC1999/008 and WC1999/016) over the area under application (DAA, 2016). These claims have been registered with the Native Title Tribunal on behalf of the claimant group. However, the tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (ie. 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 is one registered Site of Aboriginal Significance located in the area applied to clear (DAA, 2016). 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 Regulation, the 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 11 July 2016 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology DAA (2016)

4. References

- 360 Environmental (2016) Beatons Creek Gold Alluvial Operations Project, M46/10 and M 46/11. Application for a native Vegetation Clearing Permit – Purpose Permit. Report prepared for Beatons Creek Gold Pty Ltd, by 360 Environmental Pty Ltd, Western Australia, June 2016.
- DAA (2016) Aboriginal Heritage Inquiry System, Department of Aboriginal Affairs, Perth, Western Australia < <http://maps.dia.wa.gov.au>> Accessed August 2016.
- DoW (2016) Advice in relation to Clearing Permit Application CPS 7128/1. Department of Water, Western Australia, January 2009.
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Van Vreeswyk, A.M.E., Payne, A.L., Hennig, P., and Leighton, K.A. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia. Department of Agriculture, Western Australia.

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)
DER	Department of Environment Regulation, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DRF	Declared Rare Flora
DotE	Department of the Environment, Australian Government
DoW	Department of Water, Western Australia
DPaW	Department of Parks and Wildlife, Western Australia
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DotE)
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 *Wildlife Conservation Act 1950*, 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 *Wildlife Conservation Act 1950*, 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 *Wildlife Conservation Act 1950*, 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.