



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 8293/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Big Bell Gold Operations Pty Ltd**

1.3. Property details

Property: Mining Lease 21/10
Mining Lease 21/89
Mining Lease 21/97
Mining Lease 21/122
Mining Lease 21/123

Local Government Area: Shire of Cue
Colloquial name: Kinsella Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 7 February 2019

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	The vegetation of the application area is broadly mapped as the following Beard vegetation association: 313: Succulent steppe with open scrub; scattered <i>Acacia sclerosperma</i> and <i>Acacia victoriae</i> over bluebush (GIS Database). A flora and vegetation survey was conducted over the application area by Western Botanical during May 2003. The flora and vegetation survey identified the application area as being situated within a chenopod plain dominated by <i>Maireana pyramidata</i> , <i>M. georgei</i> , <i>Eremophila lachnocalyx</i> and <i>Frankenia</i> sp. In the lower stratum to 0.8 metres with occasional emergent <i>Hakea preissii</i> , <i>Acacia synchronyia</i> and <i>A. aneura</i> to 3 metres (Westgold Resources Limited, 2018). A low stony rise to the south of the northern pit area supports scattered <i>Eremophila pantonii</i> to 2 metres (Westgold Resources Limited, 2018).
Clearing Description	Kinsella Project. Big Bell Gold Operations Pty Ltd proposes to clear up to 26.87 hectares of native vegetation within a boundary of approximately 74.811 hectares, for the purpose of mineral production. The project is located approximately 6 kilometres south of Cue, within the Shire of Cue.
Vegetation Condition	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994); To Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).
Comment	The vegetation condition was derived from a vegetation survey conducted by Western Botanical in May 2003 and reassessed and verified by Maia Environmental Consultancy in October 2018. The Kinsella Project was originally approved under Notice of Intent 5023 and the previous Clearing Permit has expired. This clearing permit application is to replace an expired clearing permit CPS 510/1. Clearing permit CPS 510/1 was granted on 01 February 2005 and authorised the clearing of 30 hectares within a permit boundary of 192.477 hectares. CPS 510/1 expired on 28 February 2010. The project was not commenced and the footprint remains undisturbed by mining operations.

The proposed clearing is to construct The Kinsella Project within the Day Dawn mining area in the Murchison region. The project will consist of an open pit mine, waste rock landform (WRL), run-of-mine (ROM), topsoil stockpiles and haul road.

3. Assessment of application against Clearing Principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments **Proposal is not likely to be at variance to this Principle**

The clearing permit application area is located within the Eastern Murchison subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Murchison Bioregion (GIS Database). The Eastern Murchison subregion is characterised by its internal drainage, and extensive areas of elevated red desert sandplains with minimal dune development (CALM, 2002). Mulga woodlands often rich in ephemerals; hummock grasslands, saltbush shrublands and *Halosarcia* shrublands. The dominant land-use of the subregion is grazing (CALM, 2002).

The application area is situated within a chenopod plain dominated by *Maireana pyramidata*, *M. georgei*, *Eremophila lachnocalyx* and *Frankenia* sp. in the lower stratum to 0.8 metres with occasional emergent *Hakea preissii*, *Acacia synchronycia* and *A. aneura* to 3 metres (Westgold Resources Limited, 2018). A low stony rise to the south of the northern pit area supports scattered *Eremophila pantonii* to 2 metres (Westgold Resources Limited, 2018). No priority, Threatened Flora, undescribed or otherwise significant species were noted within or adjacent to the application area (Westgold Resources Limited, 2018; GIS Database).

The Austin Land System Priority Ecological Community (PEC) (Priority 3) is located to the north of the application area (Westgold Resources Limited, 2018; GIS Database). The buffer of the PEC lies 60 metres from the proposed road deviation and 350 metres upstream of the northern edge of the Kinsella pit. The project activities will not impact on this PEC (Westgold Resources Limited, 2018).

The entire survey area shows evidence of disturbance from mining and exploration activities as well as goat grazing and trampling (Westgold Resources Limited, 2018). The fauna habitat within the permit area is not likely to support a high level of faunal diversity.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology CALM (2002)
Western Botanical (2003)
Westgold Resources Limited (2018)

GIS Database:
- IBRA Australia
- Threatened and Priority Flora
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers

(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.

Comments **Proposal is not likely to be at variance to this Principle**

A vegetation survey was conducted by Western Botanical in May 2003 and reassessed and verified by Maia Environmental Consultancy in October 2018. The survey identified one broad fauna habitat within the application area (Westgold Resources Limited, 2018):

- Open stony plain (quartz) – mixed low open shrubland over scattered tussock grassland over white quartz.

This habitat has varying degrees of disturbance from past grazing and mining activities (Westgold Resources Limited, 2018).

No priority fauna species, including short range endemic (SRE) fauna, are described as possible within this broad habitat type (Westgold Resources Limited, 2018).

The following conservation significant fauna have been recorded within 20 kilometres of the application area, however there are no records within the application area (DBCA, 2019; GIS Database):

- Curlew Sandpiper (*Calidris ferruginea*) – Vulnerable;
- Malleefowl (*Leipoa ocellata*) – Vulnerable;
- Bilby (*Macrotis lagotis*) – Vulnerable;
- West Coast Mulga Slider (*Lerista eupoda*) – Priority 1;
- Western Grasswren (*Amytornis textilis supbs. textilis*) – Priority 4; and

- Hooded Plover (*Thinornis rubricollis*) – Priority 4.

The permit area is not likely to represent significant habitat for these fauna species.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology DBCA (2019)
Westgold Resources Limited (2018)

GIS Database:
- Imagery
- Threatened Fauna

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments Proposal is not likely to be at variance to this Principle

There are no known records of Threatened flora within the application area (GIS Database). Flora surveys of the application area did not record any species of Threatened flora (Western Botanical, 2003).

The vegetation associations within the application area are common and widespread within the region (Western Botanical, 2003; Westgold Resources Limited, 2018; GIS Database), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened (rare) flora.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Western Botanical (2003)
Westgold Resources Limited (2018)

GIS Database:
- Pre-European Vegetation
- Threatened and Priority 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.

Comments Proposal is not likely to be at variance to this Principle

There are no known Threatened Ecological Communities (TECs) located within or in close proximity to the application area (GIS Database). The nearest TEC is located approximately 220 kilometres east of the application area.

A flora and vegetation survey of the application area did not identify any TECs (Western Botanical, 2003; Westgold Resources Limited, 2018).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Western Botanical (2003)
Westgold Resources Limited (2018)

GIS Database:
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers

(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.

Comments The proposal is not at variance to this Principle

The application area falls within the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99% of the pre-European vegetation still exists in the IBRA Murchison Bioregion (Government of Western Australia, 2018). The application area is broadly mapped as Beard vegetation association 313: Succulent steppe with open scrub; scattered *Acacia sclerosperma* and *A. victoriae* over bluebush (GIS Database). Approximately 94% of the pre-European extent of this vegetation association remains uncleared at both the state and bioregional level (Government of Western Australia, 2018).

Therefore, the application area does not represent a significant remnant of native vegetation in an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DBCA managed lands
IBRA Bioregion – Murchison	28,120,586	28,044,823	~99	Least Concern	7.78
Beard vegetation associations – WA					
313	68,843	65,261	~94	Least Concern	0.00
Beard vegetation associations – Murchison Bioregion					
313	68,843	65,261	~94	Least Concern	0.00

* Government of Western Australia (2018)

** Department of Natural Resources and Environment (2002)

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology Department of Natural Resources and Environment (2002)
Government of Western Australia (2018)

GIS Database:

- IBRA Australia
- Pre-European Vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments **Proposal is not likely to be at variance to this Principle**

There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). One minor ephemeral drainage line passes through the application area (Westgold Resources Limited, 2018; GIS Database). No vegetation associations were identified as being associated with drainage lines in the Kinsella area (Western Botanical, 2003).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Western Botanical (2003)
Westgold Resources Limited (2018)

GIS Database:

- Hydrography, Lakes
- Hydrography, linear

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments **Proposal is not likely to be at variance to this Principle**

The application area lies within the Austin and Jundee land systems (GIS Database). These land systems have been mapped and described in technical bulletins produced by the former Department of Agriculture (now the Department of Primary Industries and Regional Development).

- The Austin land system is described as saline stony plains with low rises and drainage foci supporting low halophytic shrublands with scattered mulga (Curry et al., 1994). This land system is generally not susceptible to erosion; however, the removal of vegetation on drainage tracts can lead to increased erosion (Curry et al., 1994).
- The Jundee land system is described as hardpan wash plains with variable dark gravelly mantling and weakly groved vegetation; minor sandy banks; supports scattered mulga shrublands (Curry et al., 1994). This land system is generally not susceptible to erosion (Curry et al., 1994).

The proposed clearing of up to 26.87 hectares of native vegetation within a boundary of approximately 74.811 hectares, for the purpose of mineral production is unlikely to cause appreciable land degradation.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Curry et al. (1994)

GIS Database:

(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.

Comments Proposal is not likely to be at variance to this Principle

There are no conservation areas in the vicinity of the application area. The nearest DBCA (formerly DPaW) managed land is the former Lakeside Pastoral Lease which is located approximately 6 kilometres south-west of the application area (GIS Database). The proposed clearing is unlikely to impact on the environmental values of any conservation area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:
- DPaW Tenure

(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.

Comments Proposal is not likely to be at variance to this Principle

There are no Public Drinking Water Source Areas (PDWSA) within the application area (GIS Database). The nearest PDWSA is the Cue Water Reserve located approximately 5 kilometres north-east of the application area (GIS Database). There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). There is one minor ephemeral drainage line, which directs water flow to Lake Austin in the south (Westgold Resources Limited, 2018; GIS Database). The proposed clearing is unlikely to result in significant changes to surface water flows.

The groundwater in the application area ranges between 1,000-3,000 milligrams per litre of Total Dissolved Solids (TDS). This is considered to be brackish to saline groundwater. It would not be expected that the proposed clearing of 26.87 hectares would cause salinity levels within the application or surrounding area to alter. The proposed clearing is unlikely to cause deterioration in the quality of underground water.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Westgold Resources Limited (2018)

GIS Database:
- Groundwater Salinity, Statewide
- Hydrography, Linear
- Public Drinking Water Source Areas

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments Proposal is not likely to be at variance to this Principle

The climate of the region is arid, with a low average rainfall of approximately 233.9 millimetres per year and an average annual evaporation rate of 3,200 millimetres (BOM, 2019). Given this, there is likely to be little surface flow during normal seasonal rains.

There are no permanent water courses or waterbodies within the application area (GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology BOM (2019)

GIS Database:
- Hydrographic Catchments - Catchments
- Hydrography, linear

Planning Instrument, Native Title, previous EPA decision or other matter.

Comments

The clearing permit application was advertised on 24 December 2018 by the Department of Mines, Industry Regulation and Safety (DMIRS), inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WC1999/046) over the area under application (DPLH, 2019). This claim has been registered with the National Native Title Tribunal 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*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2019). 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 Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, 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 DPLH (2019)

4. References

- BoM (2019) Bureau of Meteorology Website – Climate Data Online, Cue. Bureau of Meteorology.
<http://www.bom.gov.au/climate/data/> (Accessed 21 January 2019).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- Curry, P.J., Payne, A.L., Leighton, K.A., Hennig, P. and Blood, D.A. (1994) Technical Bulletin - An Inventory and Condition Survey of the Murchison River Catchment and Surrounds, Western Australia, No. 84. Department of Agriculture, Government of Western Australia, Perth, Western Australia.
- DBCA (2019) NatureMap – Mapping Western Australia Biodiversity. Department of Biodiversity, Conservation and Attractions.
<https://naturemap.dpaw.wa.gov.au/> (Accessed 25 January 2019).
- DPLH (2019) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage.
<http://maps.daa.wa.gov.au/AHIS/> (Accessed 21 January 2019).
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- Government of Western Australia (2018) 2017 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of December 2017. WA Department of Biodiversity, Conservation and Attractions.
<https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Western Botanical (2003) DRF and Priority Flora Surveys Mt Magnet and Cue May 2003. Report for Mt Magnet Gold N.L. prepared by Western Botanical, 19 May 2003.
- Westgold Resources Limited (2018) Cue Gold Operations Supporting Document: Kinsella Project Clearing Permit Application M21/10, M21/89, M21/97, M21/122, M21/123. Report for Big Bell Gold Operations Pty Ltd prepared by Westgold Resources Limited, December 2018.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
DEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)

DSEWPac	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
DWER	Department of Water and Environmental Regulation, Western Australia
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 (2017) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T	<p>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).</p> <p>Threatened fauna is that subset of ‘Specially Protected Fauna’ declared to be ‘likely to become extinct’ pursuant to section 14(4) of the <i>Wildlife Conservation Act 1950</i>.</p> <p>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 <i>Wildlife Conservation Act 1950</i>.</p> <p>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.</p>
CR	<p>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.</p>
EN	<p>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.</p>
VU	<p>Vulnerable species Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.</p>
EX	<p>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 <i>Wildlife Conservation Act 1950</i>, 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.</p>
IA	<p>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 <i>Wildlife Conservation Act 1950</i>, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.</p>
CD	<p>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 <i>Wildlife Conservation Act 1950</i>, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.</p>
OS	<p>Other specially protected fauna</p>

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.