



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6337/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: HBJ Minerals Pty Ltd

1.3. Property details

Property: Napoleon Gold Project

Local Government Area: Shire of Coolgardie

Colloquial name: Mining Lease 15/1132

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
23.64		Mechanical Removal	Mineral production and associated activities.

1.5. Decision on application

Decision on Permit Application: Granted

Decision Date: 18 December 2014

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description *Eucalyptus salmonophloia*, *E. salubris* woodland over *Melaleuca sheathiana* tall sparse shrubland over *Cratystylis conocephala*, *Eremophila scoparia*, *Maireana sedifolia*, *Olearia muelleri* open/low open shrubland on loamy plains and valley (Botanica Consulting, 2014).

Clearing Description Napoleon Gold Project.
HBJ Minerals Pty Ltd proposes to clear up to 23.64 hectares of native vegetation within a permit area of the same size for the purposes of mineral production and associated activities. The project is located approximately 54.5 kilometres south-southeast of Kambalda, in the Shire of Coolgardie.

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

to

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

Comment Vegetation condition was not formally assessed by the proponent and was inferred by the assessing officer based on information provided by the proponent.

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 application area is situated within the Eastern Goldfields subregion of the Coolgardie bioregion as described in the Interim Biogeographic Regionalisation of Australia (IBRA) (GIS Database). The vegetation in this subregion is comprised of Mallees, Acacia thickets and shrubheaths on sand plains (Department of Conservation and Land Management, 2002). Diverse *Eucalyptus* woodlands occur around salt lakes, on ranges, and in valleys (Department of Conservation and Land Management, 2002). Salt lakes support dwarf shrublands of samphire with woodlands and *Dodonaea* shrubland occurring on basic granitoides of the Fraser Range (Department of Conservation and Land Management, 2002).

To identify environmental constraints within the Lake Cowan Project area (an area covering 22,500 hectares which includes the application area), GHD was commissioned by Metals X Ltd in 2013 to review existing ecological survey reports of the area, update desktop information on the project areas environmental values

and conduct broad scale vegetation mapping of the project area (GHD, 2014). During the desktop component of this assessment, 10 flora species of conservation significance which had been recorded or could occur within 10 kilometres of the project area were identified (GHD, 2014). A likelihood of occurrence assessment was undertaken for each species, taking into account habitats present in the project area, known species distribution and the known locations of previous records of these species. The conservation significant flora taxa identified during the desktop survey as occurring, likely to occur or possibly occurring within the project area are listed below (GHD, 2014):

- *Tecticomia flabelliformis* (Vulnerable, Priority 1) – occurrence in the surveyed area is considered to be possible;
- *Lepidosperma lyonsii* (Priority 3) – species previously recorded in the project area;
- *Acacia dissona* var *indoloria* (Priority 3) – occurrence in the surveyed area is considered to be possible;
- *Prostanthera splendens* (Priority 1) – occurrence in the surveyed area is considered likely;
- *Eucalyptus brachyphylla* (Priority 4) - occurrence in the surveyed area is considered to be possible;
- *Eucalyptus kruseana* (Priority 4) - species previously recorded in the project area;
- *Melaleuca coccinea* (Priority 3) - species previously recorded in the project area;
- *Diocirea acutifolia* (Priority 3) - species previously recorded in the project area; and
- *Eremophila praecox* (Priority 1) - occurrence in the surveyed area is considered likely.

The desktop component of this assessment also identified 8 fauna species of conservation significance which could occur in the project area (GHD, 2014). These species included the following federally listed species:

- Malleefowl (*Leipoa ocellata*) (Vulnerable, Schedule 1); and
- Red-tailed Phascogale (*Phascogale calura*) (Endangered, Schedule 1).

On 22 October 2014 Botanica Consulting conducted a targeted search for flora of conservation significance and the presence of Malleefowl habitat within the Napoleon Project Area (Botanica Consulting, 2014). Traverses across the survey area were conducted on foot along 20 metre spaced transects (Botanica Consulting, 2014).

No Threatened or Priority Listed flora taxa were identified within the application area (Botanica Consulting, 2014). No weed species were identified within the application area (Metals X Ltd, 2014). Potential impacts to biodiversity may be minimised by the implementation of a weed management condition.

A site assessment of the Lake Cowan Project Area was carried out by a qualified ecologist on 29 January 2014 to map the broad scale vegetation associations present within this area (GHD, 2014). Five broad vegetation associations were mapped within the project area (GHD, 2014). The application area is situated in vegetation community EWS; defined as consisting of *Eucalyptus salmonophloia*, *E. salubris* woodland over *Melaleuca sheathiana* tall sparse shrubland over *Cratystylis conocephala*, *Eremophila scoparia*, *Maireana sedifolia*, *Olearia muelleri* open/low open shrubland on loamy plains and valley floor (GHD, 2014). This vegetation community was widely distributed outside the application area (GHD, 2014) and consequently the application area is not considered to contain biodiversity values which are unique or different from those in the surrounding region.

The condition of the vegetation in the application area is variable and the application area contains areas which have experienced a high level of mineral exploration related disturbances and these areas are described as being degraded in nature (Metals X Ltd, 2014). However, outside of these areas the vegetation is in excellent condition with minimal grazing due to the preference of livestock for open grassy flats and the absence of dams in the application area (Metals X Ltd, 2014).

A review of available databases determined that no Threatened Ecological Communities or Priority Ecological Communities exist within the application area (GIS Databases).

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

Methodology Botanica Consulting (2014)
Department of Conservation and Land Management (2002)
GHD (2014)
Metals X Ltd (2014)
GIS Database
- IBRA WA (Regions – Subregions)
- Threatened Ecological Sites Buffered

(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

During the desktop component of the assessment of Lake Cowan's environmental values, it was identified that 8 fauna species of conservation significance could occur in the project area (GHD, 2014). These species are listed below:

- Fork-tailed Swift (*Apus pacificus*) (Migratory, Schedule 3);
- Great Egret (*Ardea alba*) (Migratory, Schedule 3);
- Cattle Egret (*Ardea ibis*) (Migratory, Schedule 3);
- Peregrine Falcon (*Falco peregrinus*) (Schedule 4);
- Malleefowl (*Leipoa ocellata*) (Vulnerable, Schedule 1);
- Rainbow Bee-eater (*Merops ornatus*) (Migratory, Schedule 3); and
- Red-tailed Phascogale (*Phascogale calura*) (Endangered, Schedule 1).

Of the species listed above, the Peregrine Falcon, Malleefowl and Rainbow Bee-eater were considered likely to occur in the Lake Cowan Project Area (GHD, 2014).

No evidence of Malleefowl occurrences was recorded in the application area during the targeted conservation significant flora and Malleefowl survey undertaken on 22 October 2014 (Botanica Consulting, 2014). In addition, it is considered unlikely that the application area represents habitat suitable for Malleefowl to use for the construction of nest mounds (Botanica Consulting, 2014).

A review of the Nature Map resource determined that both the Rainbow Bee-eater and Peregrine Falcon are widely distributed in Western Australia (Nature Map, 2014) and consequently it is not anticipated that either species is dependant on the habitats of the application area. In addition, both species are highly mobile in nature and it is anticipated that individuals of these species will leave the application area and move to other areas of suitable habitat, should they be present when clearing activities commence.

Broad scale mapping of the Lake Cowan Project Area's vegetation assemblages (undertaken on 29 January 2014) identified that the application area is situated within vegetation community EWS which was widely distributed in the Lake Cowan Project area (GHD, 2014). In addition, the proponent advises that the application area does not support a large range of mammals or avian fauna as the application area contains limited standing water and the majority of fauna is transient through the area, depending upon rainfall (Metals X Ltd, 2014). Consequently, it is not anticipated that the application area contains fauna habitats which are unique or poorly represented in the surrounding environment.

It is likely the habitats of the application area are utilised by fauna species of conservation significance, at least for the purposes of foraging. However, a review of the surrounding region using aerial photography determined that much of the vegetation in the region remains in situ (Google Earth, 2014). Therefore, the proposed clearing activities will not result in the fragmentation of fauna habitats.

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

Methodology Botanica Consulting (2014)
GHD (2014)
Google Earth (2014)
Nature Map (2014)
Metals X Ltd (2014)

(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

A review of the Western Australian Herbarium's Florabase resource determined that the following Threatened flora species occur within the Eastern Goldfields IBRA subregion (Western Australian Herbarium, 2014):

- *Allocasuarina globosa*;
- *Daviesia macrocarpa*;
- *Gastrolobium graniticum*;
- *Eucalyptus crucis* subsp. *crucis*; and
- *Eucalyptus platydisca*.

A targeted search of the application area undertaken on 22 October 2014 did not identify any threatened flora species in the application area, despite the surveying of 20 metre spaced transects throughout the application area (Botanica Consulting, 2014). When the above is considered, the proposed clearing activities are not anticipated to result in adverse impacts to the distribution of the above species.

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

Methodology Botanica Consulting (2014)
Western Australian Herbarium (2014)

(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 Threatened Ecological Communities (TEC) in close proximity to the application area (GIS Database; GHD, 2014). The application area is situated approximately 333.5 kilometres north west of the nearest TEC (GIS Database), the Bryde unwooded freshwater wetlands of the southern Wheatbelt of Western Australia (Department of Parks and Wildlife, 2014). When the distances between the application area and Threatened Ecological Communities is considered, it is unlikely the proposed clearing activities will result in adverse impacts to any TEC's.

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

Methodology Department of Parks and Wildlife (2014)
GHD (2014)
GIS Database
- Threatened Ecological Sites Buffered

(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 **Proposal is not at variance with this Principle**
The application area is situated within the Eastern Goldfield sub-region of the Coolgardie bioregion as described in the Interim Biogeographic Regionalisation of Australia and is broadly mapped as Beard vegetation association 9 (GIS Database). This Beard vegetation association retains almost 100% of its pre-European extent (see table below). Hence, the application areas vegetation does not represent a significant remnant of vegetation within an extensively cleared area.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DPaW Managed Land
IBRA Bioregion – Eastern Gold field	5,058,246.73	5,031,528.12	~99.5	Least Concern	~3.8
Beard veg assoc. – State					
82	240,509.33	235,161.94	~97.78	Least Concern	~1.53
Beard veg assoc. – Bioregion					
82	235,047.15	229,757.07	~97.75	Least Concern	~1.56

* Government of Western Australia (2013)

** Department of Natural Resources and Environment (2002).

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

Methodology Government of Western Australia (2013)
Department of Natural Resources and Environment (2002)
GIS Database:
- IBRA WA (Regions – Sub Regions)
- Beard Vegetation Associations

(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**
A review of the available databases and aerial photography of the application area has determined that no surface water features exist within the application area (GIS Database and Google Earth, 2014). In addition, the proponent advises that no drainage lines were sited in the application area during the targeted searches undertaken for flora species of conservation significance, evidence of Malleefowl occurrence and the presence of Malleefowl habitat (HBJ Minerals Pty Ltd, 2014). Based on the above; no vegetation communities growing in, or in association with surface water features, will be impacted by the proposed activities.

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

Methodology Google Earth (2014)
HBJ Minerals Pty Ltd, 2014
GIS Database:
-Hydrography, linear properties.

(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 is situated in a relatively broad plain containing soils which consist of calcareous loamy earths and red loamy earths (GHD, 2014). Based on the above, it is not anticipated that the soils in the application area would experience a significant degree of susceptibility to erosion.

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

Methodology GHD (2014).

(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**
The nearest area of conservation significance to the application area is the Class C Binaronca Nature Reserve, which is situated approximately 17.5 kilometres west southwest of the application area (GIS Database). Due to the distances between the application area and areas of conservation significance, no adverse impacts to areas of conservation significance are expected to result from the proposed activities.

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

Methodology GIS Database
-DEC 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**
The application area is situated approximately 218.7 kilometres north of the nearest Public Drinking Water Source Area (PDWSA); the Priority 1 Gibson Water Reserve (GIS Database). Due to the distances between the application area and Public Drinking Water Source Areas, it is not anticipated that the proposed activities will result in adverse impacts to any PDWSA. The clearing activities are not anticipated to result in any adverse impacts to groundwater sources underlying the application area due to the surficial nature of the clearing activities.

There are no watercourses or drainage lines in the application area (GIS Database). The clearing activities are unlikely to result in any impact to surface water quality besides the contribution of additional sediment to surface water flows. Surface water flows in this region are expected to occur during significant rainfall events and it is anticipated that during these events the surface water flows would carry sediment and other debris. The contribution of additional sediment from the clearing of the proposed 23.64 hectare area is unlikely to result in any significant adverse impacts to the quality of surface water flows.

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

Methodology GIS Database
-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 proposal is situated within the Balladonia catchment which has an area of approximately 3,483,410 hectares (GIS Database). When the size of this catchment is considered alongside the small area to be cleared and the knowledge that the eastern goldfields are prone to infrequent flooding events, it is unlikely the clearing activities will result in changes to the incidence or intensity of flooding in the surrounding region.

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

Methodology GIS Database:
Hydrographic Catchments - Catchments

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

Comments There is a Native Title Claim (WC1999/002) over the area under application (GIS Database). This claim has been registered with the National 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 (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 sites of Aboriginal heritage significance in the vicinity of the application area. It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no sites of Aboriginal heritage significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment Regulation, the Department of Water and the Department of Parks and Wildlife 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 3 November 2014 by DMP inviting submissions from the public. No submissions have been received regarding this application.

Methodology GIS Database
-Native Title Claims – Registered with the NNTT
-Native Title Claims – Filed at the Federal Court
-Native Title Claims – Determined by the Federal Court.

4. References

- Botanica Consulting (2014) Targeted search for flora of conservation significance and for presence of Malleefowl habitat- Napoleon Project. Prepared for Metals X Ltd.
- Department of Conservation and Land Management (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions.
- Department of Parks and Wildlife (2007 -) Nature Map: Mapping Western Australia's Biodiversity.
URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed December 2014.
- Department of Parks and Wildlife (2014) List of Threatened Ecological Communities endorsed by the Western Australian Minister for the Environment. Prepared by the Species & Communities Branch.
- 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.
- GHD (2014) Metals X Limited: Lake Cowan Project Area desktop assessment and broad scale mapping. Prepared for Metals X Ltd.
- Metals X Ltd (2014) Additional information provided on 12 December 2014.
- Google Earth (2014) Satellite Imagery. Viewed in December 2014.
- HBJ Minerals Pty Ltd (2014) Proponent assessment of the proposed clearing activities against the Ten Clearing Principles.
- Government of Western Australia (2013) 2012 state wide vegetation statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. 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.
- Western Australian Herbarium (2014) Flora Base - The Western Australian Flora. Department of Parks and Wildlife.
<http://florabase.dpaw.wa.gov.au>. Accessed December 2014.

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
s.17	Section 17 of the <i>Environment Protection Act 1986</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{DPaW (2013) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

- T Threatened species:**
Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna or the Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).
Threatened Fauna and Flora are further recognised by DPaW according to their level of threat using IUCN Red List criteria. For example Carnaby's Cockatoo *Calyptorhynchus latirostris* is specially protected under the *Wildlife Conservation Act 1950* as a threatened species with a ranking of Endangered.
Rankings:
CR: Critically Endangered - considered to be facing an extremely high risk of extinction in the wild.
EN: Endangered - considered to be facing a very high risk of extinction in the wild.
VU: Vulnerable - considered to be facing a high risk of extinction in the wild.
- X Presumed Extinct species:**
Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora (which may also be referred to as Declared Rare Flora).
- IA Migratory birds protected under an international agreement:**
Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice.
Birds that are subject to an agreement between governments of Australia and Japan, China and The Republic of Korea relating to the protection of migratory birds and birds in danger of extinction.
- S Other specially protected fauna:**
Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- P1 Priority One - Poorly-known species:**
Species that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, Shire, rail reserves and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.
- P2 Priority Two - Poorly-known species:**
Species that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.
- P3 Priority Three - Poorly-known species:**
Species that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities 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 localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.
- 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 do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.
- P5 Priority Five - Conservation Dependent species:**
Species that are not threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

