



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6956/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Hanking Gold Mining Pty Ltd

1.3. Property details

Property: Exploration Licence 77/1793
Local Government Area: Shire of Yilgarn
Colloquial name: Redwing Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 14 April 2016

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description The application area has been mapped as the following Beard vegetation association:
1068: Medium woodland; salmon gum, morel, gimlet & *Eucalyptus sheathiana*.

A Level 1 Flora, Vegetation and Targeted Flora Survey of the application area was undertaken by MWH (2014) during the period 7 - 9 October 2014. The vegetation survey identified the following four vegetation types of the application area:

- Vegetation Type 1 - Mid Open Mallee Woodland to Scattered Mallees of *Eucalyptus capillosa* subsp. *polyclada* (+/- scattered *E. ?eremophila*) over a Mid to Tall Open Shrubland of *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Santalum acuminatum* and *Acacia assimilis* subsp. *assimilis* over a Mid to Low Open Shrubland of *Isopogon gardneri* and *Melaleuca cordata* (+/- *Grevillea acacioides*, *Thryptomene kochii* and *Stenanthemum stipulosum*) occasionally over a sparse sedgeland of *Lepidosperma sanguinolentum* on low hills and minor laterite ridges,
- Vegetation Type 4 - Open Woodland of *Eucalyptus ?longicornis* over a Mid to Tall Sparse Shrubland of *Melaleuca pauperiflora* subsp. *fastigiata* with scattered *Santalum acuminatum* over a Low Open Shrubland of *Daviesia argillacea*, *Acacia hemiteles* and *Exocarpos aphyllus* over isolated tussocks of *Austrostipa pycnostachya* on sandy loam flats,
- Vegetation Type 5 - Low to Mid Open Woodland to Woodland of *Eucalyptus ?eremophila* over a Mid Sparse Shrubland to Shrubland of *Melaleuca pauperiflora* subsp. *fastigiata* over a Mid to Low Shrubland to Sparse Shrubland of *Acacia merrallii*, *Dodonaea stenozyga* and *Daviesia argillacea* on loam flats and gentle slopes, many of which are in recovery from recent fire, and
- Vegetation Type 2R - Rehabilitated areas consisting of a Tall Shrubland to Open Shrubland of *Hakea francisiana*, *Acacia yorkkrakensis* subsp. *acrita* and *Allocasuarina campestris* over a Mid Sparse Shrubland of *Isopogon gardneri* and *Thryptomene kochii* over a Low Sparse Shrubland of *Westringia cephalantha* var. *cephalantha* and *Stenanthemum stipulosum* on low rocky hills.

Clearing Description Redwing Project.
Hanking Gold Mining Pty Ltd (Hanking Gold) proposes to clear 5 hectares within an application area of approximately 17 hectares for the purposes of mineral exploration. The project is located approximately 45 kilometres south-east of Marvel Loch within the Shire of Yilgarn.

Vegetation Condition Very Good: Vegetation structure altered, obvious signs of disturbance (Keighery, 1994)
to

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

Comment The exact locations for drill pads have not yet been determined and a working area footprint within the application area has been provided for the purpose of assessing potential impacts. Exact locations of drill pads will be determined during drilling and will minimise impacts on vegetation and conservation significant flora where possible. The application area and surrounding areas have undergone historical disturbance from mineral exploration.

3. Assessment of application against Clearing Principles

Comments

The application area occurs within the Merredin subregion of the Avon Wheatbelt Interim Biogeographical Regionalisation for Australia (IBRA) bioregion (GIS Database). At a broad scale the vegetation of this region can be described as proteaceous scrub-heaths, rich in endemics on residual lateritic uplands and derived sandplains; mixed eucalypt, *Allocasuarina huegeliana* and Jam-York Gum woodlands on quaternary alluvials and eluvials (CALM, 2002).

A targeted flora survey of the application area identified four vegetation types within the application area (MWH, 2014). According to available databases, there are no Threatened Ecological Communities (TEC's) occurring within or near the application area (GIS Database). MWH (2014) reported no vegetation communities considered to be a Threatened Ecological Community (TEC) within or near the application area. The application area is within the boundary of the Parker Range Vegetation Complexes Priority Ecological Community (PEC) (MWH, 2014; GIS Database). The Parker Range PEC is a large area covering 55,962 hectares (MWH, 2014, GIS Database).

A total of 87 flora species were identified within the survey area representing 22 families and 47 genera (MWH, 2016). A search of available databases was undertaken and no records of Threatened flora were recorded within the application area (GIS Database). The flora and vegetation survey undertaken in 2014 and a targeted significant flora survey undertaken in 2015 of the application area did not record any Threatened flora species (MWH, 2014; MWH, 2015). Four Priority flora species were recorded during the survey, conducted over a broader area, comprising *Eutaxia lasiocalyx* (Priority 2), *Hemigenia* sp. Newdegate (E. Bishop 75) (Priority 1), *Calamphoreus inflatus* (Priority 4) and *Euryomyrtus* sp. Parker Range (N. Gibson & M. Lyons 2269) (Priority 1). The Priority 1 flora species *Euryomyrtus* sp. Parker Range was the only species recorded in the application area. A total of 1,841 individuals of this species were recorded during the survey and an additional targeted flora survey identified further individuals of *Euryomyrtus* sp. Parker Range in adjacent areas (MWH, 2015). There are at least three records of this species in the local area (MBS, 2016b). It is estimated that the proposed clearing will impact 516 of 1,841 individual plants recorded. A Conservation Management Plan has been prepared to manage impacts of the proposal. The Department of Parks and Wildlife (DPaW) have indicated that the level of impact on this species is within acceptable limits (MBS, 2016a).

A search of DPaW's NatureMap database revealed records of three amphibian, 63 bird, eight mammal (two introduced species) and 26 reptile species within a 20 kilometre radius of the application area (DPaW, 2016). Given the application area is small and contains areas of previously cleared vegetation, the area is not expected to contain a high level of faunal diversity.

Clearing for the proposal is small and temporary in nature. The vegetation of the application area has also been disturbed and the application area is considered to be low in biodiversity. For these reasons, it is unlikely the proposal will result in the clearing of native vegetation that comprises a high level of biodiversity.

A search of available biological databases was undertaken and no Threatened fauna were located in the application area (GIS Database). No fauna surveys have been undertaken over the application area, however, an opportunistic Malleefowl search was undertaken as part of the flora survey (MWH, 2014). A search of DPaW's NatureMap database revealed records of six conservation significant fauna within 20 kilometres of the application area (DPaW, 2016):

- Malleefowl (*Leipoa ocellata* – Threatened)
- Rainbow Bee-eater (*Merops ornatus* – Migratory)
- Bilby (*Macrotis lagotis* – Threatened)
- Western Brush Wallaby (*Macropus irma* – Priority 4)
- Lake Cronin Snake (*Paroplocephalus atriceps* – Priority 3)
- Tree-stem Trapdoor spider (*Aganippe castellum* – Priority 4)

The opportunistic Malleefowl survey did not record any Malleefowl individuals and no evidence of Malleefowl mounds or tracks were found in the application area (MWH, 2014). The application area has experienced some previous disturbance from mineral exploration (MWH, 2014). Given the existing disturbance and the small amount of clearing proposed (5 hectares), the application area is not likely to contain significant habitat for fauna species indigenous to Western Australia.

The application area falls within the Avon Wheatbelt Interim Biogeographic Regionalisation of Australia (IBRA) bioregion in which approximately 18.5% of the pre-European vegetation remains (Government of Western Australia, 2014; GIS Database). The vegetation of the application area has been mapped as Beard vegetation association 1068 (GIS Database). This vegetation association has over 52% remaining at a State level and approximately 49% remains at a bioregional level (Government of Western Australia, 2014). Beard vegetation association 1068 is considered to be depleted in the bioregion as greater than 30% and less than 50% of the pre-European extent of native vegetation exists (Department of Natural Resources and Environment, 2002). Large areas of native vegetation have been cleared in the broader Wheatbelt region. However, in the north-eastern Wheatbelt and areas surrounding this proposal there are large areas of intact native vegetation. The application area is neither a remnant nor does it form part of any remnants within the local area (GIS Database).

There are no watercourses or wetlands within the application area (GIS Database). The flora survey did not identify any vegetation that was associated with a watercourse or wetland (MBS, 2016a; MWH, 2014)

Northcote et al. (1960-68) describes soils of the application area as sandy plains with some clay pans and small salt lakes, dunes and lunettes; chief soils are sandy alkaline mottled yellow soils. The topography of the application area is relatively flat (GIS Database). The proposal is located in the Jilbadji ('C' Class) Nature Reserve (MWH, 2014; GIS Database). The reserve is well vegetated and the vegetation within the reserve is contiguous. The proposed clearing of 5 hectares within an application area of approximately 17 hectares is unlikely to cause land degradation.

Clearing activities have the potential to introduce and increase the spread of weeds within the Nature Reserve. Potential impacts from weeds may be minimised by the implementation of a weed management condition. Hanking Gold have prepared a CMP for drilling activities on Exploration Licence 77/1793 (Hanking Gold, 2016; GIS Database). Provided this management plan is adhered to, the proposed clearing of 5 hectares is not likely to impact on the environmental values of Jilbadji Nature Reserve.

No Public Drinking Water Source Areas are located within or in the vicinity of the application area (GIS Database). There are no watercourses or wetlands located within the application area (GIS Database). Therefore, the proposed clearing of 5 hectares is unlikely to cause deterioration in the quality of surface water, including sedimentation, erosion, turbidity or eutrophication of water bodies on-site or off-site.

The application area receives low annual rainfall (400 millimetres) and high average annual evaporation rate (2,400 millimetres). Therefore, there is likely to be little surface flow during normal seasonal rains (BoM, 2016). Whilst large rainfall events may result in the flooding of the area, the proposed clearing is not likely to lead to an increase in incidence or intensity of flooding.

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 to Principles (a), (b), (c), (d), (g), (h), (i) and (j) and is not at variance to Principles (e) and (f).

Methodology BoM (2016)
CALM (2002)
Department of Natural Resources and Environment (2002)
Government of Western Australia (2014)
MBS (2016a)
MBS (2016b)
MWH (2014)
MWH (2015)
Northcote et al. (1960-68)

GIS Database:
- DPaW Tenure
- Hydrography, linear
- IBRA WA (Regions - Sub Regions)
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Rangeland Land System Mapping
- TEC/PEC – Boundaries
- TEC/PEC – Buffer
- Threatened Fauna
- Threatened and Priority Flora

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments There are no Native Title claims over the area under application (DAA, 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*.

There are no registered Aboriginal sites of significance within the application area (DAA, 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 28 March 2016 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received.

Methodology DAA (2016)

4. References

- BoM (2016) Bureau of Meteorology Website - Climate Data Online, Mulgara. Bureau of Meteorology. http://www.bom.gov.au/climate/averages/tables/cw_007091.shtml (Accessed 5 April 2016).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Avon Wheatbelt (Merredin subregion) Department of Conservation and Land Management, Perth, Western Australia.
- DAA (2016) Aboriginal Heritage Inquiry System. Department of Aboriginal Affairs. <http://maps.dia.wa.gov.au/AHIS2> (Accessed 5 April 2016).
- 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.
- DPaW (2016) NatureMap - Mapping Western Australia's Biodiversity, Department of Parks and Wildlife. <https://naturemap.dpaw.wa.gov.au/> (Accessed 7 April 2016)
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Western Australian Department of Parks and Wildlife, Perth, Western Australia.
- Keighery B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of Western Australia (Inc.). Nedlands, Western Australia.
- MBS (2016a) Native Vegetation Clearing Permit Application CPS 6956/1, Hanking Gold Mining Pty Ltd, Redwing Project (formerly Cheritons Find), prepared by MBS Environmental, February 2016.
- MBS (2016b) Addendum to Conservation Management Plan (CMP) for Exploration at Cheritons Find (Redwing). Prepared for Hanking Gold Mining Pty Ltd, by MBS Environmental, April 2016.
- MWH (2014) Cheritons Find Level 1 Vegetation, Flora and Targeted Flora Survey, prepared for Riedel Resources Limited by MWH Australia Pty Ltd, Perth, Western Australia, December 2014.
- MWH (2015) Cheritons Find – Targeted Conservation Significant Flora Survey, prepared for Riedel Resources Limited by MWH Australia Pty Ltd, Perth, Western Australia, October 2015.
- Northcote, K. H. with Beckmann G. G., Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

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.