



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 3094/3  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: BHP Billiton Nickel West Pty Ltd

### 1.3. Property details

Property: Mining Lease 53/56  
Mining Lease 53/57  
Mining Lease 53/165  
Mining Lease 53/166  
Mining Lease 53/167  
Mining Lease 53/218  
Mining Lease 53/462  
Mining Lease 53/489  
Local Government Area: Shire of Wiluna  
Colloquial name: Mount Keith Mine Project

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
200		Mechanical Removal	Mineral production, mineral exploration, construction and maintenance of infrastructure, and associated activities

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 23 May 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: 18: Low woodland; mulga (*Acacia aneura*) (GIS Database).

A flora and vegetation survey was conducted over the application area by Western Botanical on 20 November and 1 – 5 December 2008 (Western Botanical, 2008). The following vegetation associations were recorded within the application area (Western Botanical, 2008):

#### Hills and Slopes, Sclerophyll Shrublands

**Stony Ironstone Mulga Shrublands (SIMS):** Characteristically have a scattered upper storey of *Acacia aneura* and/or *Acacia quadrimarginea*. A mid storey dominated by shrubs of *Thryptomene* sp. Leinster, *Dodonaea petiolaris*, *Dodonaea rigida*, *Calytrix desolata*, *Scaevola spinescens* and *Senna* spp. A lower storey usually dominated by annuals including *Ptilotus helipteroides*, *Brachycome iberidifolia* and other annual *Asteraceae* spp. produce a good show of ephemerals following winter rains (Western Botanical, 2008).

**Stony Ironstone Low Shrublands (SILS):** Small areas with gravelly upper to lower slopes which are dominated by *Thryptomene* sp. Leinster and *Calytrix desolata* with *Senna* spp., *Scaevola spinescens*, *Dodonaea petiolaris* and *D. rigida* also present. Characteristically there is no upper storey of mulga present. The lower storey of annuals, if present is dominated by *Ptilotus helipteroides* and occasionally various *Asteraceae* spp. (Western Botanical, 2008).

#### Undulating Plains, Sclerophyll Shrub Dominated

**Scattered *Acacia-Eremophila* Shrublands (SAES):** Colluvial plains and low rises with stony ironstone and/or quartz mantles supporting scattered sclerophyllous shrublands. The upper storey is characteristically very scattered *Acacia aneura* and the mid storey is dominated by *Eremophila galeata*, either with or without significant annual herbage lower stratum (*Helipterum craspedioides*, *Cephalopterum drummondii*, *Velleia* spp. and *Goodenia* spp.) (Western Botanical, 2008).

**Hard Pan Mulga Shrublands (HPMS):** Level or gently inclined clay-loam plains with a well developed hardpan supporting an upper storey of scattered to moderately closed *Acacia aneura* woodland/shrubland with very scattered mid storey of sclerophyllous shrubs including *Sida ectogama* and a well developed annual herb lower stratum of various *Asteraceae* *Helipterum craspedioides* and *Rhodanthe charsleyae* (Western Botanical, 2008).

**Loamy Plain Mulga Shrublands (PLMS):** Characteristically scattered to moderately closed tall mulga shrublands often with scattered *Eremophila gilesii* and *Grevillea deflexa* low shrub component on deep alluvial loamy soils (Western Botanical, 2008).

**Undulating Plains, Grass Dominated**

**Wanderrie Bank Mulga Shrublands (WABS):** Very scattered to scattered mulga shrublands on hardpan with discrete sandy rises where perennial grasses such as Woollybutt Grass (*Eragrostis eripoda*) are common or dominant. The lower shrub component usually includes *Eremophila latrobei*, *Sida platycalyx*, *Sida ectogama*, *Ptilotus obovatus*, *Eremophila forrestii* and *Eremophila spectabilis*.

**Sandplain Hummock Grasslands with Mulga Overstorey (SAMU):** An upper storey of *Acacia aneura*, *Acacia linophylla* and *Acacia coolgardiensis* dominated shrublands/woodlands either with or without significant *Eucalyptus kingsmillii* and *E. trivalvis*, with a mid storey of *Eremophila forrestii*. A lower storey of hummock grassland *Triodia basedowii* is often also associated with other grasses such as Woollybutt Grass (*Eragrostis eripoda*), Buck Wanderrie Grass (*Thyridolepis multiculmis*) and Broad-leaved Wanderrie Grass (*Monachather paradoxus*), and Sticky Everlasting (*Lawrencella davenportii*). Occasionally *Eremophila demissa* occurs in small populations (Western Botanical, 2008).

**Breakaway Grassy Plains (BRGP):** Variable sites which can be regarded as the gently sloping footslopes of granite plateaux with many exposed granite rocks, sheets and torrs evident. It is characterised by narrow to broad, gently inclined alluvial gritty, siliceous sandy plains supporting a lower storey of small range annuals (*Maireana carmosa*, *Scleroleana* spp.) and very few trees or perennial shrubs except in drainage lines and adjacent to granite rocks where preferential water penetration may occur. Broader drainage lines within this habitat support *Eucalyptus lucasii* in mixed woodlands with *Acacia quadrimarginea*, *Acacia aneura* var. *aneura* and *Pittosporum angustifolium* (Western Botanical, 2008).

**Areas of Concentrated Drainage**

**Drainage Tract Mulga Shrublands/Woodlands (DRMS):** Poorly defined narrow to broad drainage tracts dominated by *Acacia aneura* var. *latifolia*. Often little mid storey shrub component due to competition for light, however, the lower stratum is dominated by the annual *Rhodanthe chersleyae*. Soils are clay-loams and relief below surrounding plains is rarely more than 0.5 metres (Western Botanical, 2008).

**Drainage Tract Eucalypt Shrublands/Woodlands (DRES):** Narrow to broad drainage tracts with eucalypts such as *Eucalyptus lucasii* present. A very scattered shrub stratum on banks and well defined incised ephemeral watercourse with sandy or rocky substrates, often 1-2 metres below the surrounding plains and banks is characteristic (Western Botanical, 2008).

**Clearing Description**

Mount Keith Nickel Operation.  
BHP Billiton Nickel West Pty Ltd (BHP Billiton) proposes to clear up to 200 hectares of native vegetation, within a boundary of approximately 695 hectares, for the purpose of mineral production, mineral exploration, construction and maintenance of infrastructure, and associated activities. The project is located approximately 73 kilometres south-east of Wiluna, within the Shire of Wiluna.

**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**

The vegetation condition was derived from a vegetation report by BHP Billiton (2009). Previous pastoral activity has caused heavy land degradation in the region due to clearing and grazing, which has led to extensive vegetation loss and severe erosion in some areas (BHP Billiton, 2009).

Clearing permit CPS 3094/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 4 June 2009 and was valid from 4 July 2009 to 31 July 2014. The permit authorised the clearing of up to 200 hectares of native vegetation within a boundary of approximately 695 hectares, for the purpose of mineral production.

Amended permit CPS 3094/2 was granted on 22 May 2014, extending the permit duration to 31 July 2019. No other changes were made.

On 26 February 2019, the Permit Holder applied to amend CPS 3094/2 to extend the permit duration for a further 10 years, and to amend the purpose of clearing to mineral production, mineral exploration, construction and maintenance of infrastructure, and associated activities. The area of clearing authorised and the permit boundaries remained unchanged.

### 3. Assessment of application against Clearing Principles

**Comments**

BHP Billiton Nickel West Pty Ltd has applied to amend the clearing permit to extend the permit duration by 10 years to 31 July 2029, as the Mt Keith mining project is ongoing. The size of the area approved to clear (200 hectares), and the permit boundaries remain unchanged.

The amendment is unlikely to result in any significant change to the environmental impacts of the proposed clearing (GIS Database).

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*. Environmental information has been reviewed, and the assessment of the proposed clearing against the clearing principles remains consistent with the assessment contained in decision reports CPS 3094/1 and 3094/2.

**Methodology** GIS Database:  
- Imagery  
- Pre-European Vegetation  
- Threatened and Priority Flora  
- Threatened and Priority Ecological Communities boundaries  
- Threatened Fauna

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

### Comments

There is one native title claim (WC2011/007) over the area under application (DPLH, 2019). This claim has been determined by the Federal Court 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 four registered Aboriginal Sites of Significance within or in close proximity to 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.

The amendment application was advertised on 18 March 2019 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

**Methodology** DPLH (2019)

## 4. References

- BHP Billiton (2009) BHP Billiton Nickel West: Mt Keith Nickel Operation. Supporting Document for a Native Vegetation Clearing Application (Purpose Permit). BHP Billiton Nickel West Pty Ltd, April 2009.
- DPLH (2019) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage.  
<http://maps.daa.wa.gov.au/AHIS/> (Accessed 17 April 2019).
- 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 (2008) Assessment of Flora and Vegetation for a Native Vegetation Clearing Permit Application BHP Billiton, Mt Keith Operation, December 2008. Report prepared for BHP Billiton Nickel West Pty Ltd, by Western Botanical, February 2009.

## 5. Glossary

### Acronyms:

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

<b>DoW</b>	Department of Water, Western Australia (now DWER)
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia (now DBCA)
<b>DSEWPac</b>	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
<b>DWER</b>	Department of Water and Environmental Regulation, Western Australia
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i> , Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
<b>TEC</b>	Threatened Ecological Community

## **Definitions:**

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia):-

### **T            Threatened species:**

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

**Threatened fauna** is that subset of ‘Specially Protected Fauna’ listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

**Threatened flora** is that subset of ‘Rare Flora’ listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

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 in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

### **EN            Endangered species**

Threatened species considered to be “*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

### **VU            Vulnerable species**

Threatened species considered to be “*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

## **Extinct Species:**

### **EX            Extinct species**

Species where “*there is no reasonable doubt that the last member of the species has died*”, and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

**EW****Extinct in the wild species**

Species that “is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form”, and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

**Specially protected species:**

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

**MI****Migratory species**

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes 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 fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**CD****Species of special conservation interest (conservation dependent fauna)**

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**OS****Other specially protected species**

Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**P****Priority species:**

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species 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.