



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7616/2
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Norton Gold Fields Limited

1.3. Property details

Property: Mining Lease 16/48
Mining Lease 16/58
Mining Lease 16/86
Mining Lease 16/106
Mining Lease 16/150
Mining Lease 16/374

Local Government Area: Shire of Coolgardie
Colloquial name: Carbine Mining Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 1 November 2018

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 associations:
460: Succulent steppe; bluebush with saltbush in depressions;
468: Medium woodland; salmon gum and goldfields blackbutt; and
555: Hummock grasslands, mallee steppe; red mallee over spinifex, *Triodia scariosa* (GIS Database).

The majority of the application area is mapped as Beard vegetation association 468 (GIS Database).

A flora and vegetation survey was conducted over the tenements that make up the Carbine Mining Project by Botanica Consulting during July 2016. This survey included the majority of the amended application area, with the exception of the amended area which extends into M16374. The following vegetation associations were recorded within the broader survey area (a total area of approximately 2,776 hectares), grouped according to landform type and vegetation type (Botanica, 2016):

Clay-Loam Plains

Eucalypt Woodlands:

CLP-EW1: Low woodland of *Eucalyptus salmonophloia* over low scrub of *Acacia hemiteles*/*Eremophila scoparia* and dwarf scrub of *Ptilotus obovatus* on clay-loam plain.

CLP-EW2: Forest of *Eucalyptus ravida* over open low scrub of *Eremophila scoparia* and low heath of *Maireana oppositifolia*/*Ptilotus obovatus* on clay-loam plain.

CLP-EW3: Low woodland of *Eucalyptus salmonophloia*/*E. clelandii*/*E. salubris* over open low scrub of *Eremophila interstans* subsp. *interstans*/*Senna artemisioides* subsp. *filifolia* and low scrub of *Eremophila scoparia*/*Olearia muelleri* on clay-loam plain.

CLP-EW4: Low woodland of *Eucalyptus salmonophloia* over open low scrub of *Atriplex nummularia* subsp. *spatulata* and dwarf scrub of *Tecticornia disarticulata* on clay-loam plain.

CLP-EW5: Low woodland of *Eucalyptus ravida* over low scrub of *Atriplex nummularia*/*Eremophila scoparia* over dwarf scrub of *Atriplex vesicaria* on clay-loam plain.

CLP-EW6: Low woodland of *Eucalyptus clelandii* over very open shrub mallee of *E. celastroides* and dwarf

scrub of *Tecticornia disarticulata* on clay-loam plain.

Hillslope

Eucalypt Woodlands:

HS-EW1: Low woodland *Eucalyptus clelandii*/ *E. oleosa* over open low scrub of *Eremophila caperata* and low heath of *Cratystylis conocephala*/ *Eremophila pustulata* on hillslope.

HS-EW2: Low woodland of *Eucalyptus clelandii* over open low scrub of *Atriplex nummularia* subsp. *spatulata* and dwarf scrub of *Atriplex vesicaria*/ *Maireana pentatropis* and *Olearia muelleri* on hillslope.

HS-EW3: Low woodland of *Eucalyptus clelandii* over scrub of *Acacia acuminata* and low scrub of *Acacia erinacea*/ *Atriplex vesicaria*/ *Eremophila pustulata* on hillslope.

Rocky Hillslope

Mallee Woodlands and Shrublands:

RH-MWS1: Very open shrub mallee of *Eucalyptus griffithsii* over low scrub of *Dodonaea lobulata* and *Eremophila scoparia* over dwarf scrub of *Scaevola spinescens* on rocky hillslope.

Eucalypt Woodlands:

RH-EW1: Low woodland of *Eucalyptus clelandii* over low scrub of *Eremophila interstans* subsp. *virgata*/ *Eremophila scoparia* on rocky hillslope.

Sand-Loam Plain

Casuarina Forests and Woodlands:

SLP-CFW1: Forest of *Casuarina pauper* over low woodland of *Acacia hemiteles* and dwarf scrub of *Olearia muelleri*/ *Scaevola spinescens* on sand-loam plain.

Eucalypt Woodlands:

SLP-EW1: Low woodland of *Eucalyptus salubris* over heath of *Eremophila scoparia* and dwarf scrub of *Olearia muelleri*/ *Sclerolaena diacantha* on sand-loam plain.

SLP-EW2: Low woodland of *Eucalyptus clelandii*/ *E. transcontinentalis* over low scrub of *Acacia hemiteles*/ *Eremophila caperata* and dwarf scrub of *Eremophila parvifolia*/ *Olearia muelleri* on sand-loam plain.

SLP-EW3: Low woodland of *Eucalyptus griffithsii* over low scrub of *Acacia acuminata*/ *Dodonaea lobulata*/ *Eremophila interstans* subsp. *virgata* and dwarf scrub of *Olearia muelleri*/ *Ptilotus obovatus* on sand-loam plain.

Eucalypt Woodlands/ Mallee Woodlands and Shrublands:

SLP-EW/MWS1: Low woodland of *Eucalyptus clelandii*/ Open tree mallee of *E. griffithsii*/ *E. oleosa* over low scrub of *Eremophila caperata* and dwarf scrub of *Scaevola spinescens*/ *Senna artemisioides* subsp. *filifolia* on sand-loam plain.

SLP-EW/MWS2: Low woodland of *Eucalyptus clelandii*/ Open tree mallee of *E. griffithsii* over scrub of *Melaleuca pauperiflora* and dwarf scrub of *Atriplex vesicaria* on sand-loam plain.

Mallee Woodlands and Shrublands:

SLP-MWS1: Open shrub mallee of *Eucalyptus oleosa* over low scrub of *Dodonaea viscosa*/ *Senna artemisioides* subsp. *filifolia* and dwarf scrub of *Ptilotus obovatus* on sand-loam plain.

SLP-MWS2: Open shrub mallee of *Eucalyptus griffithsii* over open low scrub of *Acacia acanthoclada*/ *A. merrallii* and dense hummock grass of *Triodia scariosa* on sand-loam plain.

The application area also includes some cleared areas of existing and historical mining disturbance (Botanica, 2016).

Clearing Description

Carbine Mining Project
Norton Gold Fields Limited proposes to clear up to 200 hectares of native vegetation within a boundary of approximately 678 hectares, for the purpose of mineral production and associated activities. The project is located approximately 50 kilometres northwest of Kalgoorlie, within the Shire of Coolgardie.

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

Clearing permit CPS 7616/1 was granted by the Department of Mines, Industry Regulation and Safety on 31 August 2017 and was valid from 23 September 2017 to 30 September 2027. The permit authorised the clearing of up to 150 hectares of native vegetation within a boundary of approximately 459.8 hectares, for the purpose of mineral production and associated activities.

On 21 August 2018, the Permit Holder applied to amend CPS 7616/1 to increase the amount of clearing authorised to 200 hectares, and to increase the permit boundary to approximately 678 hectares. The permit

holder has also applied to add Mining Lease 16/374 to the tenure.

3. Assessment of application against Clearing Principles

Comments

Norton Gold Fields Limited has applied to increase the amount of authorised clearing by 50 hectares to 200 hectares, increase the permit boundary to approximately 678 hectares and include Mining Lease 16/374. The amendment area is located immediately adjacent to and surrounding the original permit area.

The permit area is located within the Eastern Goldfields subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Coolgardie Bioregion (GIS Database). The Eastern Goldfields subregion is characterised by gently undulating plains, with low hills and ridges and a series of salt lakes in the west, and a raised fault-block to the east. Calcareous soils are dominant on the plains. The vegetation of the subregion is dominated by Mallees, Acacia thickets and shrub-heaths on sandplains, and diverse Eucalyptus woodlands around salt lakes, on ranges, and in valleys (CALM, 2002).

The majority of the amendment area is mapped as Beard vegetation association 468, with a small portion of the amendment area mapped as Beard vegetation association 555 (Botanica, 2016; GIS Database). This is consistent with the original permit area. More than 98% of the pre-European extent of each of these vegetation associations remains uncleared at both the state and bioregional level (Government of Western Australia, 2018). Given this, the vegetation proposed to be cleared does not represent a significant remnant of native vegetation in an area that has been extensively cleared.

The amended area falls within the northern edge of the Great Western Woodlands, the largest and most intact eucalypt woodland remaining in southern Australia. The amended area represents 0.004 percent of the area covered by the Great Western Woodland, and the proposed clearing of 200 hectares is unlikely to have any significant impact on the conservation values of the Great Western Woodlands.

Botanica (2016) conducted a Level 1 flora and vegetation survey which included the majority of the amended application area (with the exception of the amended area which extends into M16/374). No Threatened flora, Priority flora, Threatened Ecological Communities or Priority Ecological Communities have been recorded within the amended permit area (GIS Database), and none were found during the flora and vegetation survey (Botanica, 2016). Though the amended area in M16/374 was not included in the field survey, analysis of aerial imagery indicates that the vegetation associations and landform types occurring within M16/374 are similar to those occurring within the surveyed areas (GIS Database). Given this, it is not expected that this area represents an area of higher biodiversity than the area included in the field survey.

Several fauna species (mostly birds) of conservation significance have the potential to occur within the amendment area, however the majority of these fauna species tend to be wide ranging and highly mobile (CALM, 2002). Database searches recorded Malleefowl as likely to occur within the amended area and they have been previously recorded within approximately 10 kilometres of the amendment area (Botanica, 2016). Continued implementation of the existing fauna management condition may minimise potential impacts to Malleefowl from the proposed clearing.

There are no permanent watercourses or wetlands within the amendment area (GIS Database), though several minor ephemeral creek lines pass through the amended application area (GIS Database). Potential impacts to vegetation associated with these watercourses, and vegetation downstream from the application area, may be minimised by the continued implementation of the existing watercourse management condition on the permit.

The majority of the amendment area is relatively flat and the region receives a relatively low annual rainfall (GIS Database). Though the removal of vegetation cover may result in localised erosion, the proposed clearing of an additional 50 hectares of native vegetation is unlikely to result in appreciable land degradation.

There are no Public Drinking Water Source Areas within or in close proximity to the amended application area (GIS Database) and there are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). Given this, the proposed clearing is unlikely to result in significant changes to surface water quality. Several seasonal drainage lines pass through the amended application areas and temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed additional clearing is unlikely to increase the incidence or intensity of natural flooding events.

There are no conservation areas within the amendment area (GIS Database), and the proposed additional clearing is unlikely to significantly impact on ecological linkages to any conservation areas.

Four weed species were recorded within the application area during the flora and vegetation survey (Botanica, 2016). Weeds have the potential to out-compete native vegetation and reduce biodiversity. Continued implementation of the existing weed management condition may minimise the risk of further spread of weeds.

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 report CPS 7616/1.

Methodology Botanica (2016)
CALM (2002)
Government of Western Australia (2018)

GIS Database:

- DPaW Tenure
- Hydrography, Lakes
- Hydrography, Linear
- IBRA Australia
- Imagery
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Threatened and Priority Ecological Communities boundaries
- Threatened and Priority Ecological Communities buffers
- Threatened and Priority Flora
- Threatened Fauna
- Topographical Contours, Statewide

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

Comments

There is one Native Title claim (WC2017/001) over the area under application (DPLH, 2018). 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, 2018). 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 10 September 2018 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 (2018)

4. References

- Botanica (2016) Level 1 Flora and Vegetation Survey of the Carbine Mining Area. Report prepared for Norton Gold Fields Limited, by Botanica Consulting, July 2016.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DPLH (2018) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage.
<http://maps.daa.wa.gov.au/AHIS/> (Accessed 28 September 2018).
- 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.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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</p>

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.