



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5636/3
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Hamersley Exploration Pty Ltd

1.3. Property details

Property: Exploration Licence 47/584
Exploration Licence 47/631
Exploration Licence 47/1943
Local Government Area: Shire of Ashburton
Colloquial name: Juna Downs Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
100		Mechanical Removal	Mineral Exploration, Hydrogeological Drilling and Associated Activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 18 August 2016

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description Beard vegetation associations have been mapped for the whole of Western Australia and are useful to look at vegetation in a regional context. Three Beard vegetation associations have been mapped within the permit area (GIS Database):

18: Low woodland; mulga (*Acacia aneura*);

82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*; and

567: Hummock grasslands, shrubb steppe; mulga and kanji over soft spinifex and *Triodia basedowii*.

Pilbara Flora undertook a flora and vegetation survey of the original permit area and other areas of interest to Hamersley Exploration Pty Ltd for mineral exploration in 2011 (Pilbara Flora, 2012). A total of 31 vegetation associations were recorded in this area which are detailed in decision report CPS 5636/1.

Further flora surveys were undertaken by Rio Tinto in 2013 covering additional areas included in CPS 5636/2 (Rio Tinto, 2013). This survey identified a further ten vegetation associations within the permit boundary, which are detailed in decision report CPS 5636/2.

Clearing Description

Juna Downs Project.
Hamersley Exploration Pty Ltd proposes to clear up to 100 hectares of native vegetation within a total boundary of approximately 857 hectares for the purpose of mineral exploration. The project is located approximately 73 kilometres east, south-east of Tom Price, in the Shire of Ashburton.

Vegetation Condition

Pristine: (Pristine or nearly so, no obvious signs of disturbance) (Keighery, 1994);

to

Good: (Vegetation structure significantly altered by very obvious signs of multiple disturbance. Retains basic vegetation structure or the ability to regenerate it) (Keighery, 1994).

Comment

Vegetation condition appears to have been recorded using the scale created by Trudgen (1988). These vegetation condition ratings have been converted to the scale implemented by Keighery (1994).

Clearing permit CPS 5636/1 was granted by the Department of Mines and Petroleum on 29 August 2013 and authorised the clearing of 35 hectares within a boundary of approximately 778 hectares. CPS 5636/1 was amended on 16 January 2014 to increase the area authorised to clear to 43 hectares and increase the permit boundary to approximately 857 hectares. Hamersley Exploration Pty Ltd has applied to increase the amount of clearing authorised to 100 hectares, add hydrogeological drilling and associated activities to the purpose of clearing, extend the duration of the permit to 31 December 2021

and amend the annual reporting date.

3. Assessment of application against clearing principles

Comments

Hamersley Exploration Pty Ltd has applied to increase the clearing authorised by 57 hectares, add hydrogeological drilling and associated activities as a purpose for clearing, extend the duration of the permit to 31 December 2021 and amend the annual reporting date.

There has not been any Threatened or Priority Ecological Communities recorded within the permit area (Pilbara Flora, 2012; Rio Tinto, 2013; GIS Database). All of the vegetation communities recorded within the permit area are considered to be well represented in the region (Pilbara Flora, 2012; Rio Tinto, 2013).

No species of Threatened flora have been recorded within the permit area and the habitat present is not likely to support Threatened flora species known in the Pilbara (Pilbara Flora, 2012; Rio Tinto, 2013, Western Australian Herbarium, 2016). There have been three species of priority flora recorded within the permit area; *Rhagodia* sp. Hamersley (M.E. Trudgen 17794) (Priority 3), *Triodia* sp. Mt Ella (M.E. Trudgen 12739) (Priority 3) and *Eremophila magnifica* subsp. *magnifica* (Priority 4). Both *Rhagodia* sp. Hamersley (M.E. Trudgen 17794) and *Eremophila magnifica* subsp. *magnifica* were found in small, spatially scattered populations which could be avoided during mineral exploration activities (Pilbara Flora, 2012). *Triodia* sp. Mt Ella (M.E. Trudgen 12739) was recorded in much higher numbers and will not be able to be avoided (Pilbara Flora, 2012). These species have been recorded from numerous locations across the Pilbara and the additional 57 hectares of clearing is not likely to have a significant impact on these species.

No significant fauna habitats such as caves, waterholes, significant drainage features, large tree hollows or termite mounds have been observed within the permit area (Rio Tinto, 2013). The fauna habitats present are considered to be common and widespread throughout the region (Rio Tinto, 2013). There has been several Western Pebble-mound Mouse mounds (*Pseudomys chapmanii* - Priority 4) recorded within the permit area (Rio Tinto, 2013). Suitable habitat for this species is widespread throughout the region. The additional 57 hectares of clearing is not likely to have a significant impact on this species above that of the previous permit (CPS 5636/2).

There are no permanent watercourses or wetlands within the permit area, however, there are numerous ephemeral watercourses that dissect the area (GIS Database). These watercourses only flow following significant rainfall events. The clearing of an additional 57 hectares within the permit area is not likely to have a significant impact on the quality of surface or ground water within the local area.

The permit area is situated within the Boolgeeda, Wannamunna, Newman and Paraburdoo land systems (Vreeswyk et al, 2004; GIS Database). These land systems are either resistant to erosion or have experienced little erosion to date (Vreeswyk et al., 2004). The proposed additional clearing is not likely to have a significant increase on the levels of land degradation in the permit area.

The permit boundary abuts the boundary of Karijini National Park (GIS Database). Care needs to be taken to ensure that clearing activities do not increase the spread of weeds into the National Park. Potential impacts from weed species may be minimised by the existing weed management condition.

The proposed amendment is unlikely to result in any significant change to the environmental impacts of the proposed clearing. The assessment against the clearing principles remains consistent with the assessment contained in decision reports CPS 5636/2 and CPS 5636/1.

Methodology

Pilbara Flora (2012)
Rio Tinto (2013)
Van Vreeswyk et al. (2004)
Western Australian Herbarium (2016)

GIS Database:
- DPaW Tenure
- Groundwater Salinity, Statewide
- Hydrography, linear
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Rangeland Land System Mapping
- Threatened and Priority Flora
- Threatened and Priority Ecological Communities Buffered

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

Comments

There is one Native Title claim over the area under application (WC2011/006) (Department of Aboriginal Affairs,

2016). 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 Aboriginal Sites of Significance within the application area (Department of Aboriginal Affairs, 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 6 June 2016 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology Department of Aboriginal Affairs (2016)

4. References

- Department of Aboriginal Affairs (2016) Aboriginal Heritage Inquiry System. Department of Aboriginal Affairs. <http://maps.dia.wa.gov.au/AHIS2/> (Accessed on 2 August 2016).
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Pilbara Flora (2012) Flora and vegetation survey for drilling areas at Juna Downs and Native Vegetation Clearing Permit supporting information. Report prepared for Rio Tinto Iron Ore by Pilbara Flora, February 2012.
- Rio Tinto (2013) Flora and Vegetation Survey at Juna Downs South Detritals: Native Vegetation Clearing Permit Supporting Report. Rio Tinto Iron Ore Pty Ltd, September 2013.
- Trudgen, M.E. (1988) A report on the flora and vegetation of the Port Kennedy area. Unpublished report prepared for Bowman Bishaw and Associates, West Perth.
- Van Vreeswyk, A.M.E., Payne, A.L., Hennig, P., and Leighton, K.A. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia, Department of Agriculture, Western Australia.
- Western Australian Herbarium (2016) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <http://florabase.dpaw.wa.gov.au/> (Accessed 2 August 2016)

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 <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
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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.