

1. Application details		
1.1. Permit application de	etails	
Permit application No.:	5557/2	
Permit type:	Purpose Permit	
1.2. Proponent details		
Proponent's name:	Cameco Australia Pty Ltd	
1.3. Property details		
Property:	Mining Lease 45/264	
	Mining Lease 45/266	
	Mining Lease 45/267	
	Mining Lease 45/420	
	Mining Lease 45/693	
	Mining Lease 45/694	
	Mining Lease 45/695	
	Mining Lease 45/696	
	Mining Lease 45/1217	
	Exploration Licence 45/1773	
	Exploration Licence 45/1774	
	Prospecting Licence 45/2656	
Local Government Area:	Shire of East Pilbara	
Colloquial name:	Kintyre Uranium Project	
1.4. Application		
Clearing Area (ha) No. T	rees Method of Clearing For the purpose of:	
52	Mechanical Removal Mineral exploration and borrow pits	
1.5. Decision on application		
Decision on Permit Application:	Grant	
Decision Date:	9 October 2014	

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. Two Beard vegetation associations have been mapped within the application area (GIS Database):

99: Hummock grasslands, shrub steppe; Acacia coriacea & hakea over hard spinifex, Triodia basedowii; and

117: Hummock grasslands, grass steppe; soft spinifex.

Bennett Environmental Consulting (2007; 2010) undertook a flora survey between 25 June and 4 July 2007, and 27 April and 4 May 2010 of the Kintyre Lease, encompassing a large proportion of the application area. The following 34 vegetation units were recorded during the 2007 and 2010 surveys (Bennett Environmental Consulting, 2010):

Hillsides

- The northern hillsides, around the proposed exploration camp site were covered in *Triodia epactia* and *Triodia wiseana*;
- Open Heath dominated by Acacia retivenea over Hummock Grassland of Triodia species with quartzite and schistose rocks;
- Woodland of *Eucalyptus leucophloia* over Scattered Herbs of *Ptilotus calostachyus* and Scattered Grasses of *Eriachne mucronata* or Hummock Grassland of *Triodia pungens*; and
- Low Open Shrubland of Indigofera monophylla and Senna glutinosa subsp. glutinosa over Open Herbs dominated by Cleome viscosa and Boerhavia gardneri over Grassland dominated by Triodia pungens.

At the base of hills

- Low Shrubland of *Eremophila tietkensii*. This vegetation was open with the main cover consisting of small rocks;
- Open Shrubland of *Acacia wanyu* over Low Shrubland of *Eremophila tietkensii* over Hummock Grassland of *Triodia pungens*;

- High Open Shrubland of Acacia synchronicia over Low Open Shrubland dominated by Eremophila tietkensii over Grassland of Triodia wiseana; and
- Open Shrubland of Acacia robeorum over Very Open Tussock Grassland of Triodia angusta.

Sand dunes

The sand dunes were all low, only rising slightly above the level of the plain. Typically they included a greater number of taxa than the rocky soils with *Triodia schinzii* typically the dominant grass usually in association with *Triodia basedowii*.

Red sandy soils - Flat

- Acacia inaequilatera dominant;
- Acacia dictyophleba dominant;
- Acacia ancistrocarpa dominant typically associated with Acacia ligulata, Acacia dictyophleba and Acacia inaequilatera;
- Acacia ligulata dominant;
- Acacia melleodora dominant;
- Acacia eriopoda over Open Shrubland of Acacia wanyu over Hummock Grassland of Triodia basedowii;
- Senna taxa dominant;
- Grevillea taxa dominant;
- Hakea lorea over Triodia basedowii; and
- Grassland of Triodia basedowii.

Lower Slope Above Creek

- Low Open Forest of Acacia aneura; and
- Low Open Woodland of Eucalyptus odontocarpa.

Drainage lines

- Hill sides;
- Scree at base of hills;.
- Drainage lines at the base of hills;
- Red sandy soils flat ground;

Creek lines

- Within the creeks themselves the vegetation was a High Open Woodland of *Eucalyptus camaldulensis* over Annual Tussock Grassland of several taxa including *Sorghum plumosum*; and
- On the floodplain above the banks the vegetation was Low Open Woodland of *Corymbia opaca* over Grassland dominated by *Cenchrus ciliaris* and *Sorghum plumosum*.

Claypans

- Scattered Shrubs of Senna glutinosa subsp. glutinosa over bare ground;
- Low Shrubland dominated by *Indigofera brevidens* over Very Open Herbs dominated by *Heliotropium* sp. over Tussock Grassland dominated by *Chrysopogon fallax*.
- Open Grassland of Xerochloa laniflora and Dactyloctenium radulans;
- Tussock Grassland of Cenchrus ciliaris, Aristida inaequiglumis, Xerochloa laniflora and Eragrostis eriopoda.
- Areas of nearly bare ground;
- Shrubland of *Eremophila forrestii* subsp. forrestii over Low Open Shrubland dominated by *Sclerolaena* species over Annual Tussock Grassland of *Aristida contorta*;
- Low Open Shrubland of Senna artemisioides subsp. oligophylla and Senna artemisioides subsp. helmsii over Tussock Grassland dominated by Cenchrus ciliaris; and
- Low Open Shrubland of Sclerolaena species.

Clearing Description Kintyre Uranium Project. Cameco Australia Pty Ltd propose

Cameco Australia Pty Ltd proposes to clear up to 52 hectares of native vegetation within a 10,424 hectare area for the purpose of mineral exploration and access to borrow pits for road maintenance and construction. The project is located 200 kilometres east of Nullagine in the Shire of East Pilbara.

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

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

Comment

Vegetation Condition

Clearing Permit CPS 5557/1 was granted by the Department of Mines and Petroleum on 6 June 2013 and authorised the clearing of up to 52 hectares of native vegetation within a total boundary of 10,424 hectares. On 1 August 2014 Cameco Australia Pty Ltd applied to change the clearing permit boundary due to the addition of Prospecting Licence P45/2656.

3. Assessment of application against clearing principles

Comments

This amendment is required to change the permit boundary due to the addition of Prospecting Licence P45/2656. There is no requirement to increase the area approved for clearing. The additional licence is required to provide direct access from exploration licence E45/1774 to exploration licence E45/2690. The amendment to the clearing permit is required to drill one RC drill hole and construct 200 metres of track (3.5 metres wide).

There are no significant additional environmental issues associated with the proposed amendment.

The current environmental information has been reviewed and the assessment of the clearing principles is consistent with the assessment in clearing permit decision report CPS 5557/1 (GIS Database).

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

Comments

There are two Native Title Claims (WC06/3 and WC96/78) over the area under application (GIS Database). These claims have been registered with the National Native Title Tribunal on behalf of the claimant groups. 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 several registered Aboriginal Sites of Significance within the application area (GIS Database). 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 Environmental 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 amended clearing permit application was advertised on 18 August 2014 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the proposed clearing.

Methodology GIS Database:

- Aboriginal Sites of Significance
- Native Title Claims Determined by the Federal Court
- Native Title Claims Registered with the NNTT
- Native Title Claims Filed at the Federal Court

4. References

Bennett Environmental Consulting (2007) Flora and Vegetation Kintyre Leases. Unpublished report prepared for Canning Resources Pty Ltd dated August 2007.

Bennett Environmental Consulting (2010) Flora and Vegetation Kintyre Lease. Unpublished report prepared for Cameco Australia Pty Ltd, dated July 2010.

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 DAA DAFWA DEC DER	Bureau of Meteorology, Australian Government Department of Aboriginal Affairs, Western Australia Department of Agriculture and Food, Western Australia Department of Environment and Conservation, Western Australia (now DPaW and 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	Environmental Protection Act 1986, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (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	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

Definitions:

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

Threatened species:

Specially protected under the *Wildlife Conservation Act 1950,* listed under Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna or the Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

Threatened Fauna and Flora are further recognised by the Department according to their level of threat using IUCN Red List criteria. For example Carnaby's Cockatoo *Calyptorynchus latirostris* is specially protected under the *Wildlife Conservation Act 1950* as a threatened species with a ranking of Endangered.

<u>Rankings:</u>

CR: Critically Endangered - considered to be facing an extremely high risk of extinction in the wild. EN: Endangered - considered to be facing a very high risk of extinction in the wild. VU: Vulnerable - considered to be facing a high risk of extinction in the wild.

X Presumed Extinct species:

Specially protected under the *Wildlife Conservation Act 1950,* listed under Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora (which may also be referred to as Declared Rare Flora).

IA Migratory birds protected under an international agreement:

Specially protected under the *Wildlife Conservation Act 1950,* listed under Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice.

Birds that are subject to an agreement between governments of Australia and Japan, China and The Republic of Korea relating to the protection of migratory birds and birds in danger of extinction.

S Other specially protected fauna:

Specially protected under the *Wildlife Conservation Act 1950,* listed under Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice.

P1 Priority One - Poorly-known species:

Species that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, Shire, rail reserves and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.

P2 Priority Two - Poorly-known species:

Species that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.

P3 Priority Three - Poorly-known species:

Species that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.

P4

P5

Priority Four - Rare, Near Threatened and other species in need of monitoring:

- (a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.
- (b) Near Threatened. Species that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.
- (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Priority Five - Conservation Dependent species:

Species that are not threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

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.