



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7914/2
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Australian Nickel Investments Pty Ltd

1.3. Property details

Property:
Mining Lease 36/127
Mining Lease 36/180
Mining Lease 36/349
Mining Lease 36/371
Mining Lease 36/659

Local Government Area: Shire of Leonora
Colloquial name: Cosmos Nickel Project

1.4. Application

| | | | |
|--------------------|-----------|--------------------|--|
| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
| 157 | | Mechanical Removal | Mineral Production and Associated Activities |

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 2 August 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:
18: Low woodland; mulga (*Acacia aneura*); and
39: Shrublands; mulga scrub (GIS Database).

Flora and vegetation surveys were conducted over the application area by Mattiske Consulting Pty Ltd (Mattiske) (2011), PEK (2017) and Botanica Consulting (2018). The following vegetation associations were recorded within the application area (Botanica Consulting, 2018; Mattiske, 2011):

A1 - Low Woodland of *Acacia aneura* var. *aneura* and *Acacia craspedocarpa* with occasional *Acacia aneura* var. *macrocarpa*, *Acacia aneura* var. *fulginea* and *Santalum spicatum* over *Eremophila fraseri* subsp. *galeata*, *Eremophila spectabilis*, *Monachather paradoxus* and *Eragrostis eriopoda*;

A2 - Low Open Woodland of *Acacia aneura* var. *aneura* and *Acacia aneura* var. *Macrocarpa* over *Eremophila fraseri* subsp. *galeata*, *Eremophila spectabilis*, *Eremophila latrobei* subsp. *latrobei*, *Senna artemisioides* subsp. *helmsii* x *oligophylla* and *Eragrostis eriopoda*;

A6: Low Woodland of *Acacia aneura* var. *aneura* [*Acacia aneura*], *Acacia aneura* var. *intermedia*, *Acacia aneura* var. *fulginea* [*Acacia fuscaneura*] and *Acacia grasbyi* with occasional patches of *Eucalyptus kingsmillii* subsp. *kingsmillii* over *Triodia basedowii* grass, *Hakea lorea* subsp. *lorea*, *Duboisia hopwoodii* and *Senna artemisioides* subsp. *petiolaris* and *Eremophila oldfieldii* subsp. *angustifolia* over *Indigofera brevidens* and *Senna* species.

S5 – Open shrubland of *Eremophila scoparia* with *Hakea presisii*, *Scaevola spinescens*, *Solanum lasiophyllum* *Maireana triptera*, *Senna artemisioides* subsp. *helmsii* x *oligophylla* and occasional emergent *Acacia* species; and

S7 – Open shrubland of *Eremophila fraseri* subsp. *galeata* and *Acacia tetragonophylla* with occasional emergent *Acacia* species over *Senna artemisioides* subsp. *helmsii* x *oligophylla* and *Solanum lasiophyllum*.

Clearing Description Cosmos Nickel Project.
Australian Nickel Investments Pty Ltd proposes to clear up to 157 hectares of native vegetation within a boundary of approximately 1,136 hectares, for the purpose of mineral production and associated activities. The project is located approximately 33 kilometres north-west of Leinster, within the Shire of Leonora.

Vegetation Condition Pristine: No obvious signs of disturbance (Keighery, 1994);
To:

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

Comment

The vegetation condition was derived from a vegetation survey conducted by Mattiske (2011).

Clearing permit CPS 7914/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 8 February 2017 and was valid from 3 March 2018 to 28 February 2023. The permit authorised the clearing of up to 77 hectares of native vegetation within a boundary of approximately 917 hectares, for the purpose of mineral production and associated activities.

On 6 June 2018, the Permit Holder applied to amend CPS 7914/1 to increase the amount of clearing authorised to 157 hectares and increase the permit boundary to approximately 1,136 hectares.

3. Assessment of application against Clearing Principles

Comments

Australian Nickel Investments Pty Ltd has applied to increase the area permitted to clear from 77 hectares to 157 hectares, and to increase the permit boundary from 917 hectares to approximately 1,136 hectares.

Flora and vegetation surveys of the amendment area identified one new vegetation type within the permit boundary (Mattiske, 2005; 2011) and PEK (2017). This vegetation type is not considered to be of higher diversity than those assessed within clearing permit decision report CPS 7914/1. The amendment area is adjacent to the Priority 1 Priority Ecological Community (PEC) 'Violet Range (Perseverance Greenstone) vegetation complexes (banded ironstone formation). The vegetation located within the proposed clearing area is not representative of the vegetation within this PEC (Lindbeck, 2018). No vegetation communities recorded are considered to be a Threatened Ecological Community (Lindbeck, 2018; GIS Database). There were no Threatened or Priority Flora species identified within the amendment boundary (Lindbeck, 2018; GIS Database).

Fauna surveys have been undertaken by Biota (2004), Ninox (2005) and PEK (2017) which included the amended permit boundary. The survey identified five fauna habitats, none of which were identified to be of regional or local significance to vertebrate fauna (Ninox, 2005). PEK (2017) identified 11 fauna species of conservation significance that have the potential to occur. Based on preferred habitat type, the Malleefowl (*Leipoa ocellata*) is the most likely to occur within the application area, however the survey identified no preferred or critical habitat types for any conservation significant fauna species. No Malleefowl mounds were observed within the PEK (2017) survey, or in previous fauna surveys.

Several ephemeral drainage lines intersect the amendment area (GIS Database). Surface runoff within these drainage lines only flow following heavy rainfall associated with thunderstorms or cyclonic activity (Lindbeck, 2018). Surface drainage is largely via sheet flow with surface water flow only following periods of heavy rainfall events. The vegetation in these drainage lines is not considered to be riparian vegetation (Lindbeck, 2018).

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 7914/1.

Methodology

Biota (2004)
Lindbeck (2018)
Mattiske (2005)
Mattiske (2011)
Ninox (2005)
PEK (2017)

GIS Database:

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

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

Comments

There is one Native Title claim 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 18 June 2018 by the 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

- Biota (2004) Cosmos Nickel Mine Extension Fauna Survey – Fauna and Faunal Assemblage Report. Report prepared for URS Australia Pty Ltd and Sir Samuel Mines NL by Biota Environmental Sciences, May 2004.
- Botanica Consulting (2018) Memorandum: Cosmos Water Management Pond Expansion Flora and Vegetation Desktop Assessment. Report prepared for Western Areas Limited, by Botanica Consulting Pty Ltd, May 2018.
- DPLH (2018) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. <http://maps.daa.wa.gov.au/AHIS/> (Accessed 3 July 2018).
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Lindbeck (2018) Supporting document for Clearing Permit (CPS 7914/1) Amendment Application. Report prepared for Australian Nickel Investments Pty Ltd by Clark Lindbeck and Associates Pty Ltd, June 2018.
- Mattiske Consulting Pty Ltd (2005) Flora and Vegetation Survey of the Cosmos Nickel Project, including the Prospero Expansion Area. Report prepared for URS Australia Pty Ltd by Mattiske Consulting Pty Ltd, April 2005.
- Mattiske (2011) Flora and Vegetation Survey of Proposed Evaporation Pond Extensions: Cosmic Nickel Project. Report prepared for Xstrata Nickel Australasia Operations Pty Ltd, by Mattiske Consulting, April 2011.
- Ninox (2005) Vertebrate Fauna Habitat Assessment of the Proposed Expansion to the Cosmos Nickel Mine. Report prepared for URS Australia Pty Ltd by Ninox Wildlife Consulting, May 2005.
- PEK (2017) Cosmos Nickel Project – Level 1 vegetation, flora and fauna survey, Cosmos Nickel Mine Water Management Ponds and Coreyard Expansion. Report prepared for Australian Nickel Investments Pty Ltd by PEK Enviro, January 2017.

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 prevent it becoming eligible for listing as threatened. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.</p> |
| OS | <p>Other specially protected fauna Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.</p> |
| P | <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</p> |

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.