Government of **Western Australia**
Department of **Mines and Petroleum**

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5110/3
Permit type: Purpose

1.2. Proponent details

Proponent's name: **Poseidon Nickel Limited**

1.3. Property details

Property: *Poseidon Nickel Agreement Act 1971,* Mining Lease 261SA (AM 70/261)
Mining Lease 38/1244
Mining Lease 38/1245
Miscellaneous Licence 39/221
Local Government Area: Shire of Laverton
Colloquial name: Windarra Nickel Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 3 October 2013

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 are located within the application area (Government of Western Australia, 2011; GIS Database):

18: Low woodland; mulga (*Acacia aneura*);
109: Hammock grasslands, shrub steppe; *Eucalyptus youngiana* over hard Spinifex.

MBS Environmental (2012) conducted a flora and vegetation survey over the original application area and parts of the amended application area, identifying the following vegetation communities;

DRMS – Drainage Tract Mulga Shrublands - *Acacia aneura* var. *conifer, A. aneura* var. *aneura* scrub over mixed open dwarf scrub of *Eremophila serrulata, Solanum lasiophyllum* and *Abutilon cryptopetalum* over diverse, mid-dense annual forbs and grasses of *Eragrostis* aff. *falcata, Dysphania glomulifera* subsp. *eremaea* and *Vellia rosea* on alluvial, orange, sandy silt;

MUWA – Mulga Wanderrie Grassy Shrublands – *Acacia ramulosa* var. *linophylla, Eremophila forrestii* subsp. *forrestii* open low scrub, over scattered mixed low shrubs and annuals including *Eremophila granitica, Maireyana triptera, Solanum lasiophyllum and Dysphania kalpari* over very open mixed grasses of *Eragrostis eriopoda, Monacather paradoxa, Aristida contorta, Enneapogon* aff. *cylindrica* and *Amphipogon* aff. *caerulescens* var. *caerulescens* on orange sand with scattered quartz cobbles;

SAES – Stony Plain Acacia-Eremophila Shrublands – Open low scrub of *Acacia grasbyi, A. ramulosa* var. *ramulosa, Senna artemisioides* subsp. *artemisioides,* and *Eremophila abietina* subsp. *abietina* over open dwarf scrub of *Ptilotus obovatus, Solanum lasiophullum* and *Ptilotus helipteroides* with *Eriachne* aff. *mucronata* and *Calandrinia polyandra* on quartz boulder scree over orange sandy silt;

SASP – Sandplain Spinifex Hummock Grasslands – *Acacia aneura* var. *conifera* open scrub with emergent *Brachychiton gregorii* over scattered *Eremophila forrestii* subsp. *forrestii* shrubs over dense *Triodia basedowii* hummock grass and very open forbs, annuals and grasses on orange sandy silt;

SIMS – Stony Ironstone Hummock Grasslands – Very scattered to scattered tall shrublands with well-developed mid and low shrub strata in which the genera *Eremophila* and *Senna* are prominent. Dominant shrubs are *Acacia aneura, Eremophila fraseri, Scaevola spinescens* and *Ptilotus obovatus*; and

Rehabilitated and Disturbed.

Clearing Description

Windarra Nickel Project. Poseidon Nickel Limited (Poseidon) proposes to clear up to 225 hectares of native vegetation within a total application area of approximately 540 hectares, for the purpose of mineral production and associated activities. The project is located approximately 14 kilometres north-west of Laverton in the Shire of Laverton.

Vegetation Condition	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (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 survey conducted by MBS Environmental (2012). CPS 5110/1 was approved by the Department of Mines and Petroleum on 2 August 2012. On 31 July 2013, Poseidon applied to increase the area authorised to be cleared and permit boundary. The amendment is to allow for a revision of the infrastructure footprint, such as the airstrip, accommodation village, access roads, pipeline routes and power transmission line and related surface works. The vegetation will be cleared using a dozer and/or grader. The vegetation and topsoil will be stockpiled separately for use in rehabilitation.

3. Assessment of application against clearing principles

Comments

Poseidon has applied to increase the amount of clearing authorised from 72.6 hectares to 225 hectares, increase the permit boundary from 155 hectares to 540 hectares and include Mining Leases 38/1244 and 38/1245 and Miscellaneous Licence 39/221. The purpose of the amendment is to allow for the revision of the infrastructure footprint.

A flora and vegetation survey covering the original permit area and parts of the amended permit area was undertaken by MBS Environmental (MBS Environmental, 2012). Areas of the amended permit area that were included in the flora and vegetation survey were found to have the same vegetation types as those found in the original permit area (MBS Environmental, 2012). For the areas that were not included in the flora and vegetation survey, it is considered likely that the vegetation types are consistent with the original permit area given their relatively small scale and close proximity. It is also worth noting that areas of the amended permit area have been significantly disturbed from historic mining activities (MBS Environmental, 2012)

According to available databases, there are no records of threatened flora species within the amended permit area (GIS Database). A search of the Department of Environment and Conservation's Threatened and Priority Flora databases identified no threatened flora species occurring within a 20 kilometre radius of the amended permit area (DEC, 2013). No threatened flora species were recorded in the areas surveyed by MBS Environmental (2012).

MBS Environmental (2012) identified 27 priority flora species occurring within 40 kilometres of the application area. A search of DEC's Threatened and Priority Flora Database identified three priority flora species within 20 kilometres of the application area (DEC, 2013). The field assessment undertaken by MBS Environmental (2012) did not record any priority flora species occurring within the areas that were surveyed.

There were no Threatened or Priority Ecological Communities (PECs) recorded within the amended permit area. Although the Laverton Downs subterranean PEC protection buffer extends into the amended permit area (GIS Database), the actual PEC is located approximately four kilometres to the north-west (MBS Environmental, 2012). It is considered unlikely that the proposed amendment would result in any additional impacts on this PEC.

The fauna survey conducted by MBS Environmental (2012) did not record any additional fauna habitat types in the amended permit area. None of the fauna habitats recorded were identified as being significant or restricted to this locality, therefore the increase in clearing is not likely to have any additional impacts to fauna habitat.

Several ephemeral watercourses lie within the amended permit area (MBS Environmental, 2012; GIS Database). The vegetation survey conducted by MBS Environmental (2012) identified one vegetation community associated with a watercourse (Drainage Tract Mulga Shrublands). Impacts to riparian vegetation were identified in clearing permit decision report CPS 5110/1. A vegetation management condition was placed on CPS 5110/1 to minimise impacts to riparian vegetation, which will also be imposed on this permit.

The amended permit area lies within five additional land systems (GIS Database). These soil types can be susceptible to erosion if surface vegetation is disturbed or removed (Pringle et al, 1994). A staged clearing condition was placed on CPS 5110/1 to minimise the potential for land degradation, which will be also be imposed on this permit.

The original permit boundary covered State Agreement Act tenure and as such contained a rehabilitation condition. In most cases, projects that are subject to a State Agreement do not have detailed rehabilitation requirements otherwise required by the *Mining Act 1978*, so a rehabilitation condition is placed on the clearing permit. In this case, Poseidon (pers. comm., 2013) has advised that a Mine Closure Plan has been prepared in consultation with DMP which outlines rehabilitation commitments for the entire project area. The Department of State Development (DSD) has confirmed that adherence to the Mine Closure Plan will be enforced through the *Poseidon Nickel Agreement Act 1971* (pers. comm. DSD, 2013). For this reason, a rehabilitation condition has not been placed on this permit as it will duplicate the rehabilitation requirements of other legislation.

Current environmental information has been reviewed and the assessment of the clearing principles is consistent of the assessment in clearing permit decision report CPS 5110/1.

Methodology

DEC (2013)
MBS Environmental (2012)
Pringle et al (1994)
GIS Database:
- Threatened and Priority Flora
- Threatened Fauna
- Threatened Ecological Sites Buffered
- Pre-European Vegetation
- Hydrography, Linear
- IBRA WA (Regions – Subregions)
- Rangeland Land System Mapping
- Public Drinking Water Sources Areas PDWSAs

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

Comments

There are no native title claims over the area under application (GIS Database). 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 (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 Environment Regulation (formally the Department of Environment and Conservation) 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 amendment was advertised on 12 August 2013 inviting submissions from the public. No submissions were received.

Methodology

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

4. References

DEC (2013) NatureMap - Mapping Western Australia Biodiversity, Department of Environment and Conservation, viewed 13 September 2013, <http://naturemap.dec.wa.gov.au>.

Government of Western Australia (2011) 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

MBS Environmental (2012) Windarra Nickel Project Clearing Permit (Purpose Permit) Application - Native Vegetation Management Plan and Assessment of Clearing Principles. Prepared for Poseidon Nickel Limited, June 2012.

Pringle, H.J.R., Van Vreeswyk, A.M.E. and Gilligan, S.A. (1994) An inventory and condition survey of rangelands in the northeastern Goldfields,Western Australia. Department of Agriculture, Western Australia, Technical Bulletin No. 87.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), Western Australia
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia
DMP	Department of Mines and Petroleum, Western Australia

DoE	Department of Environment (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water
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
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:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005*. Department of Conservation and Land Management, Como, Western Australia} :-

P1 **Priority One - Poorly Known taxa**: taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

P2 **Priority Two - Poorly Known taxa**: taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

P3 **Priority Three - Poorly Known taxa**: taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.

P4 **Priority Four – Rare taxa**: taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.

R **Declared Rare Flora – Extant taxa** *(= Threatened Flora = Endangered + Vulnerable)*: taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

X **Declared Rare Flora - Presumed Extinct taxa**: taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

Schedule 1 **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.

Schedule 2 **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.

Schedule 3 **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.

Schedule 4 **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna*. Department of Conservation and Land Management, Como, Western Australia} :-

P1 **Priority One: Taxa with few, poorly known populations on threatened lands**: Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

P2 **Priority Two: Taxa with few, poorly known populations on conservation lands**: Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

P3 **Priority Three: Taxa with several, poorly known populations, some on conservation lands**: Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of

conservation status before consideration can be given to declaration as threatened fauna.

P4 **Priority Four: Taxa in need of monitoring**: Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.

P5 **Priority Five: Taxa in need of monitoring**: Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999)*

EX **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.

EX(W) **Extinct in the wild:** A native species which:
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.

CR **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.

EN **Endangered:** A native species which:
(a) is not critically endangered; and
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.

VU **Vulnerable:** A native species which:
(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.

CD **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 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.