



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6365/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Western Areas Nickel Pty Ltd

1.3. Property details

Property: Exploration Licence 77/1581
Local Government Area: Shire of Yilgarn
Colloquial name: Parker Dome Exploration Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
10		Mechanical Removal	Mineral Exploration

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 8 January 2015

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. Three Beard vegetation associations are located within the application area (GIS Database):

Beard vegetation association 128: Bare areas; rock outcrops
Beard vegetation association 511: Medium woodland; salmon gum & morrel
Beard vegetation association 1413: Shrublands; acacia, casuarina & melaleuca thicket

A level 1 flora and vegetation survey of the application area and surrounding area conducted by PEK Environmental (2014) during 14 to 25 September 2012 identified 15 vegetation types within the application area:

Sandplain upper slope and crest

SUah1 - *Allocasuarina*, *Melaleuca*, *Hakea* spp. Heath. Heath A, variously dominated by *Allocasuarina corniculata* or *Melaleuca atroviridis* and *Hakea meisneriana* over a Low Heath C to Low Heath D dominated variously by mixed shrubs including *Beaufortia interstans*, *Phebalium lepidotum*, *Melaleuca cordata*, *Persoonia helix*, *Leptospermum erubescens*, *Thryptomene kochii* and *Hibbertia rostellata*.

SUesm2 - *Eucalyptus pileata*, *E. moderata* and *E. eremophila* subsp. *eremophila* Very Open Shrub Mallee. Very Open Shrub Mallee of *Eucalyptus pileata*, *E. moderata* and *E. eremophila* subsp. *eremophila* over Low Heath C to Low Heath D dominated by *Melaleuca eleuterostachya* and *Daviesia benthamii* subsp. *acanthoclona*.

SUelw1 - *Eucalyptus flocktoniae* subsp. *flocktoniae* Open Low Woodland. Open Low Woodland A, dominated by *Eucalyptus flocktoniae* subsp. *flocktoniae* over Scrub dominated by *Melaleuca sheathiana* over Dwarf Scrub C to Dwarf Scrub D dominated by species such as *Acacia evenulosa*, *Acacia merrallii* and *Daviesia argillacea*.

Sandplain mid slope

SUesm5 - *Eucalyptus platycorys* Very Open Shrub Mallee. Very Open Shrub Mallee of *Eucalyptus platycorys* with Low Scrub A of *Melaleuca hamata* over Dwarf Scrub C to Dwarf Scrub D dominated by *Melaleuca hamata* and *Acacia eremophila* subsp. *eremophila*.

Alluvial Valley

Vuew1 - *Eucalyptus salmonophloia* Open Woodland. Open Woodland dominated generally by *Eucalyptus salmonophloia* over Low Woodland B of mixed *Eucalyptus* mallee species including *E. sheathiana*, *E. horistes*, *E. myriadena* and *E. cylindrocarpa* over Heath A to Low Scrub A often dominated by *Melaleuca acuminata* subsp. *acuminata* over Open Dwarf Scrub C to Open Dwarf Scrub D dominated often by *Acacia hemiteles*, *Scaevola spinescens* and *Grevillea acuaria*.

VUelw1 - *Eucalyptus transcontinentalis* Open Low Woodland. Open Low Woodland A of *Eucalyptus transcontinentalis* with Very Open Tree Mallee of *E. sheathiana* over Scrub to Low Heath D of mixed *Melaleuca* species including *Melaleuca lateriflora*, *M. acuminata* subsp. *acuminata*, *M. eleuterostachya*, *M. laxiflora*, *Melaleuca hamata* and *Melaleuca brophyi*.

Rock Outcrop

SBghas1 - *Grevillea*, *Hakea*, and *Allocasuarina* spp. Scrub. Low Scrub A to Open Low Scrub A dominated often by *Grevillea ?excelsior* (sterile), *Hakea multilineata* or in some areas *Allocasuarina acutivalvis* and *Acacia yorkrakinensis* subsp. *acrita* over Dwarf Scrub C to Dwarf Scrub D often dominated variously by *Grevillea cagiana*, *Melaleuca atroviridis*, *Melaleuca hamata*, *Melaleuca cordata*, *Acacia assimilis* subsp. *assimilis*, *Santalum acuminatum*, *Allocasuarina corniculata* and *Hakea multilineata*.

SBesm2 - *Eucalyptus burracoppinensis* Very Open Shrub Mallee. Very Open Shrub Mallee dominated by *Eucalyptus burracoppinensis* often over Open Low Scrub of *Allocasuarina acutivalvis* and *Exocarpos sparteus* over Low Heath C to Low Heath D dominated by *Allocasuarina acutivalvis*, *Acacia assimilis* subsp. *assimilis* and *Melaleuca cordata*.

SBesm3 - *Eucalyptus flocktoniae* subsp. *flocktoniae* and *E. eremophila* subsp. *eremophila* Very Open Shrub Mallee. Very Open Shrub Mallee of *Eucalyptus flocktoniae* subsp. *flocktoniae* and *E. eremophila* subsp. *eremophila* over Dwarf Scrub C to Dwarf Scrub D dominated by species such as *Daviesia argillacea* and *Acacia evenulosa*.

SBesm4 - *Eucalyptus eremophila* subsp. *eremophila* Open to Very Open Shrub Mallee. Open to Very Open Shrub Mallee dominated by *Eucalyptus eremophila* subsp. *eremophila* often over Heath A of *Acacia yorkrakinensis* subsp. *acrita* over Dwarf scrub C to Dwarf scrub D dominated by species such as *Acacia hemiteles*, *Melaleuca hamata* and *Acacia yorkrakinensis* subsp. *acrita*.

Sandplain mid slope

SBesm5 - Mixed *Eucalyptus* spp. Very Open Shrub Mallee. Very Open Shrub Mallee dominated variably by species including *Eucalyptus platycorys*, *E. olivina*, *E. gracilis*, *E. rigidula*, *E. incrassata* and *E. phaenophylla* subsp. *phaenophylla* over generally a Low Heath to Low Scrub dominated by species such as *Allocasuarina acutivalvis*, *Melaleuca hamata*, *Melaleuca atroviridis*, *Acacia assimilis* subsp. *assimilis*, *Acacia baeuverdiana*, *Jacksonia nematoclada* and *Melaleuca villosisepala*.

SBmds1 - *Melaleuca hamata* Dwarf Scrub. Dwarf Scrub C to Dwarf Scrub C dominated by *Melaleuca hamata* with Open Low Sedges of *Lepidosperma* sp. (sterile). Other dwarf scrub species included *Synaphea divaricata*, *Grevillea eryngioides*, *Hybanthus epacroides*, *Schoenus hexandrus* and *Pimelea aeruginosa*.

Sandplain lower slope and valley

SBesm7 - *Eucalyptus* spp. Very Open Shrub Mallee. Very Open Shrub Mallee of *Eucalyptus* sp. (sterile) over Low Heath to Dwarf Scrub often dominated by a variable mixture of *Grevillea dissecta* (P4), *Melaleuca hamata*, *Grevillea ?excelsior* (sterile), *Acacia yorkrakinensis* subsp. *acrita*, *Hakea multilineata*, *Santalum acuminatum*, *Hakea erecta* or *Acacia assimilis* subsp. *assimilis*.

SBesm8 - *Eucalyptus eremophila* subsp. *eremophila* Open Shrub Mallee. Open Shrub Mallee, often dominated by *Eucalyptus eremophila* subsp. *eremophila*, over a Dwarf Scrub C to Dwarf Scrub D often dominated by a mixture of shrubs including *Melaleuca hamata* and/or *Melaleuca atroviridis*, *Acacia evenulosa*, *Daviesia argillacea* and *Wilsonia humilis*.

Alluvial valley

VBelw1 - *Eucalyptus salmonophloia* Open Woodland to Open Low Woodland. Open Low woodland of fire impacted *Eucalyptus salmonophloia* over Very Open Shrub Mallee of *Eucalyptus eremophila* subsp. *eremophila* and *Eucalyptus* spp. (sterile) over Low Heath to Dwarf Scrub of *Acacia hemiteles*, *Scaevola spinescens*, *Acacia merrallii*, *Microcybe multiflora* subsp. *multiflora* and *Daviesia argillacea*.

Clearing Description	Parker Dome Exploration Project. Western Areas Nickel Pty Ltd proposes to clear up to 10 hectares of native vegetation within a total boundary of approximately 1,457 hectares for the purposes of mineral exploration. The project is located approximately 56 kilometres southeast of Marvel Loch, in the Shire of Yilgarn.
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 PEK Environmental (2014). Clearing for exploration will employ the raised blade clearing method to allow for rapid regrowth following the temporary use of access tracks for exploration (Western Areas NL, 2014).

3. Assessment of application against clearing principles

Comments

The application area occurs within the Southern Cross (COO2) subregion of the Coolgardie Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by diverse *Eucalyptus* woodlands (*Eucalyptus salmonophloia*, *E. salubris*, *E. transcontinentalis*, *E. longicornis*) rich in endemic eucalypts occur around these salt lakes, on the low greenstone hills, valley alluvials and broad plains of calcareous earths. The salt lake surfaces support dwarf shrublands of samphire. The granite basement outcrops at mid-levels in the landscape and supports swards of *Borya constricta*, with stands of *Acacia acuminata* and *Eucalyptus loxophleba*. Upper levels in the landscape are the eroded remnants of a

lateritic duricrust yielding yellow sandplains, gravelly sandplains and laterite breakaways. Mallees (*Eucalyptus leptopoda*, *E. platycorys* and *E. scyphocalyx*) and scrub-heaths (*Allocasuarina corniculata*, *Callitris preissii*, *Melaleuca uncinata* and *Acacia beauverdiana*) occur on these uplands (CALM, 2002).

A flora and vegetation survey by PEK Environmental (2014) identified 15 vegetation types within the application area. Vegetation surveyed within the application area appeared typical of Southern Cross vegetation and well represented within the local and regional area (PEK Environmental, 2014; GIS Database). The condition of the vegetation was classified as 'very good' to 'pristine' (PEK Environmental, 2014; Keighery, 1994). None of the vegetation associations recorded were identified as a Threatened or Priority Ecological Community (PEK Environmental, 2014; GIS Database).

A total of 251 flora taxa from 86 genera and 36 families were recorded within the larger survey area (PEK Environmental, 2014). No Threatened Flora species were identified during the flora survey (PEK Environmental, 2014). PEK Environmental (2014) recorded four Priority Flora species within the application area; *Cryptandra crispula* (Priority 3), *Hibbertia glabriuscula* (Priority 3), *Lasiopetalum fitzgibbonii* (Priority 3), and *Grevillea dissecta* (Priority 4). All of these Priority Flora species have been located elsewhere in the local and regional area (DPaW, 2015). The proponent's Conservation Management Plan states that prior to any disturbance the area proposed for clearing will be inspected for conservation significant flora species and where located advice will be sought from the Department of Parks and Wildlife (DPaW) (Western Areas Nickel Pty Ltd, 2015).

A level 1 fauna survey by Australasian Ecological Services (2014) was conducted over the application area and surrounding areas during 12 to 16 November 2014. Nine fauna habitat types were identified during the fauna survey. The fauna habitats within the application area support a moderately diverse group of fauna, including conservation significant fauna, but these are not restricted to the application area and occur within the broader region (Australasian Ecological Services, 2014).

Australasian Ecological Services (2014) recorded four species of conservation significance within the survey area; Rainbow Bee-eater (*Merops ornatus*) (Schedule 3 - WC Act) (Migratory - EPBC Act), Crested Bellbird (*Oreoica gutturalis* ssp. *gutturalis*) (DPaW - Priority 4), Shy Heathwren (*Hylacola cauta* subsp. *whitlocki*) (DPaW - Priority 4) and Western Rosella (*Platyceris ocerptos* subsp. *xanthogenys*) (DPaW - Priority 4). These conservation significant species are highly mobile and may use the study area for foraging as part of a larger territory area (Australasian Ecological Services, 2014). However, based on the small scale clearing (10 hectares) and the low impact nature of the proposed activities, it is unlikely that the proposed clearing will impact on the conservation significance of the conservation significant fauna species or their faunal habitat.

There are no permanent watercourses or water bodies mapped within the area under application (GIS Database). There are several non-perennial drainage lines within the application area (GIS Database). There was no riparian vegetation mapped in association with these non-perennial drainage lines (PEK Environmental, 2014). The proposed clearing of 10 hectares within a boundary of 1,457 hectares is unlikely to significantly impact on any unmapped riparian vegetation within the application area.

The land system associated with the application area is not susceptible to erosion (PEK Environmental, 2014). The proposed clearing is not likely to cause deterioration in the quality of surface or underground water or increase the incidence or intensity of flooding (PEK Environmental, 2014; GIS Database).

The application area is located within the Jilbadji Nature Reserve (GIS Database). Advice from DPaW (2014) has no concerns with the proposed clearing given that the proponent utilises the Conservation Management Plan to minimise and mitigate reserve values. Based on the small scale clearing (10 hectares) and the low impact nature of the proposed activities, it is unlikely that the proposed clearing will impact on the conservation values of Jilbadji Nature Reserve.

There were no weed species identified within the application area. Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts to the biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*, and the proposed clearing is at variance to Principle (h), is not likely to be at variance to Principles (a), (b), (c), (d), (f), (g), (i), and (j), and is not at variance to Principle (e).

Methodology Australasian Ecological Services (2014)
CALM (2002)
DPaW (2014)
DPaW (2015)
Keighery (1994)
PEK Environmental (2014)
Western Areas Nickel Pty Ltd (2015)
GIS Database:
- DEC Tenure
- Evaporation Isopleths

- Groundwater Salinity
- Hydrography, linear
- IBRA WA (Regions - Sub Regions)
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Rangeland Land System Mapping
- Rainfall, Mean Annual
- Threatened and Priority Flora
- Threatened Ecological Sites Buffered

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

Comments

There are no Native Title claims over the area under application (GIS Database). 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 (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, 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 24 November 2014 by the Department of Mines and Petroleum 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

- Australasian Ecological Services (2014) Level 1 Fauna Survey Jilbadji Nature Reserve for proposed mineral exploration program. Prepared for Western Areas Ltd, November 2014.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Coolgardie2 (COO2 - Southern Cross subregion) Department of Conservation and Land Management, Western Australia.
- DPaW (2014) Advice regarding CPS 6365/1 - Jilbadji Nature Reserve. Department of Parks and Wildlife, Environmental Management Branch, November 2014.
- DPaW (2015) NatureMap Department of Parks and Wildlife, viewed 5 January 2015 <<http://naturemap.dec.wa.gov.au>>.
- Keighery, B.J (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- PEK Environmental (2014) Forrestania Nickel Project Regional Exploration Program Level 1 Vegetation and Flora Survey for exploration and prospecting licences within the Jilbadji Nature Reserve. Prepared for Western Areas Ltd October 2014.
- Western Areas Nickel Pty Ltd (2015) Information regarding the Conservation Management Plan for CPS 6365/1. Internal email, January 2015.
- Western Areas NL (2014) Supporting Document for Clearing Permit Application, Parker Dome Exploration Project on Exploration Lease E77/1581. Prepared for the Department of Mines and Petroleum, Western Australia.

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
s.17	Section 17 of <i>the Environment Protection Act 1986</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

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

- T 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 DPaW according to their level of threat using IUCN Red List criteria. For example Carnaby's Cockatoo *Calyptorhynchus latirostris* is specially protected under the *Wildlife Conservation Act 1950* as a threatened species with a ranking of Endangered.

Rankings:
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 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.
- P5 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.