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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2424/2
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Western Areas Limited**

1.3. Property details

Property: Miscellaneous Licence 70/111
Miscellaneous Licence 74/44
General Purpose Lease 70/226
General Purpose Lease 70/231
Local Government Area: Shire of Kondinin & Shire of Lake Grace
Colloquial name: Forrestania Nickel Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
55		Mechanical Removal	Constructing a De-watering Pipeline and Evaporation Pond

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 12 June 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 and are useful to look at vegetation extent in a regional context. Three Beard vegetation associations are located within the application area (GIS Database):

519: Shrublands; mallee scrub, *Eucalyptus eremophila*. According to the Shared Land Information Platform (SLIP, 2008), Beard vegetation association 519 is a mallee shrubland of *Eucalyptus eremophila* over *Melaleuca* sp.

936: Medium woodland; salmon gum. According to the Shared Land Information Platform (SLIP, 2008), Beard vegetation association 936 is a woodland dominated by *Eucalyptus salmonophloia* over *Melaleuca lateriflora*, *Santalum acuminatum*, over *Olearia muelleri*, *Grevillea huegelii* and *Gahnia ancistrophylla*.

2048: Shrublands; scrub-heath in the Mallee Region. According to the Shared Land Information Platform (SLIP, 2008), Beard vegetation association 2048 has been divided into two sub-types. Both of these sub-types occur within the application area. These sub types are:

2048: A shrub layer including *Acacia* sp., *Allocasuarina acutivalvis*, *Adenanthos argyreus*, *Calothamnus lateralis*, *Melaleuca* sp., *Hakea* sp., *Allocasuarina campestris*, over a ground layer of *Verticordia* sp., *Dryandra* sp., *Melaleuca* sp., *Baeckea* sp., *Leucopogon* sp., *Isopogon* sp., *Petrophile* sp. and *Banksia* sp.

2048.100098: A shrub layer including *Acacia fragilis*, *Acacia multispicata*, *Grevillea excelsior*, *Hakea falcata*, *Leptospermum erubescens*, *Allocasuarina acutivalvis*, *Allocasuarina campestris*, *Allocasuarina corniculata*, *Allocasuarina pinaster*, *Grevillea hookeriana*, *Hakea platysperma*, *Hakea scoparia*, *Santalum acuminatum* over a lower shrub layer of *Adenanthos argyreus*, *Acacia fragilis*, *Banksia sphaerocarpa*, *Banksia violacea*, *Calothamnus lateralis*, *Dryandra cirsioides*, *Grevillea* sp., *Isopogon* sp., *Petrophile* sp., over a ground layer including *Baeckea* sp., *Boronia caerulescens*, *Brachysema daviesioides*, *Calytrix brachyphylla*, *Conospermum* sp., *Melaleuca* sp., *Microcorys* sp., *Leucopogon* sp. and *Verticordia* sp.

Three separate flora surveys were conducted over the application area by Botanica Consulting. One flora survey covered the dewatering pipeline route, whilst the others covered the evaporation pond site.

As a result of the surveys a total of nine vegetation types were identified within the application area. These were (Botanica Consulting, 2006):

Transitional tall *Eucalyptus* woodland: Dominated by *Eucalpytus flocktoniae* ssp. *flocktoniae* and *Eucalyptus urna* over a mid-storey of *Melaleuca* sp., *Daviesia nematophylla*, *Senna artemisioides* ssp. *filifolia*, *Halgania andromedifolia* and *Dodonaeae bursariifolia* over an under-storey of *Olearia muelleri*, *Wilsonia humilis*, *Atriplex stipitata*, *Astroloma serratifolium*, *Acacia intricata*, *Acacia deficiens* and *Microcybe albiflora*.

Cleared farmland: Species include *Ptilotus polystachyus* ssp. *polystachyus*, *Acacia lasiocalyx*, *Daviesia benthamii* ssp. *acanthoclada*, *Urodon dasyphyllus*, *Grevillea cagiana*, *Hakea erecta* and *Drummondita hassellii*.

Sandplain regrowth: Upper-storey of *Acacia lasiocalyx* and *Eucalyptus* sp. over a mid-storey of *Melaleuca cordata*, *Melaleuca adnata*, *Daviesia nematophylla* and *Exocarpos aphyllus*, over an under-storey of *Acacia sphacelata* ssp. *sphacelata*, *Verticordia chrysantha* and *Grevillea huegelii*.

***Casuarina* shrubland:** Upper-storey of *Allocasuarina acutivalvis*, *Allocasuarina corniculata* and *Eucalyptus leptophylla* over a mid-storey of *Acacia yorkrakinensis*, *Acacia cracentis*, *Leptospermum erubescens*, *Melaleuca cordata*, *Banksia elderiana*, *Dryandra cirsioides*, *Grevillea eriostachya* and *Hakea scoparia*, over an under-storey of *Hibbertia pungens*, *Hibbertia gracilipes*, *Dampiera eriocephala*, *Beaufortia interstans*, *Verticordia chrysantha* and *Drummondita hassellii*.

Sandplain heath: Upper-storey of *Allocasuarina campestris* and *Callitris preissii* over a mid-storey of *Acacia multispicata*, *Calothamnus quadrifidus*, *Leptospermum erubescens*, *Melaleuca teuthidoides*, *Banksia elderiana*, *Grevillea cagiana*, *Hakea erecta* and *Santalum acuminatum*.

Fire regeneration: Upper-storey of *Grevillea cagiana*, *Grevillea eriostachya* and *Banksia elderiana*, over a mid-storey of *Goodenia pinifolia*, *Eremophila densifolia*, *Melaleuca cordata* and *Grevillea shuttleworthiana* ssp. *obovata*, over an under-storey of *Lepidosperma brunonianum*, *Verticordia chrysantha* and *Drummondita hassellii*.

***Eucalyptus* mallee woodland:** Upper-storey of *Eucalyptus eremophila* ssp. *eremophila*, *Eucalyptus calycogona* and *Eucalyptus cylindrocarpa* over an mid-storey of *Eremophila drummondii*, *Melaleuca adnata*, *Melaleuca elliptica*, *Melaleuca hamata*, *Daviesia benthamii* ssp. *acanthoclada* and *Hakea multilineata*, over an under-storey of *Coopernookia strophiolata*, *Westringia cephalantha*, *Acacia sphacelata* ssp. *sphacelata* and *Acacia intricata*.

***Melaleuca* thicket:** Upper-storey of *Eucalyptus suggrandis* ssp. *promiscua*, *Melaleuca hamata* over a mid-storey of *Goodenia pinifolia*, *Acacia hadrophylla*, *Leptospermum erubescens* and *Grevillea huegelii* over an under-storey of *Lepidosperma brunonianum*, *Coopernookia strophiolata*, *Westringia cephalantha*, *Grevillea acuaria* and *Dodonaea bursariifolia*.

***Eucalyptus rugulata* woodland:** Upper-storey of *Eucalyptus flocktoniae* ssp. *flocktoniae* and *Eucalyptus rugulata* over a mid-storey of *Allocasuarina campestris*, *Acacia fragilis*, *Acacia yorkrakinensis*, *Calothamnus quadrifidus*, *Hakea erecta*, *Hakea scoparia*, *Persoonia helix* and *Melaleuca cordata*, over an under-storey of *Astroloma serratifolium*, *Hibbertia pungens*, *Westringia cephalantha*, *Acacia sphacelata* ssp. *sphacelata*, *Darwinia inconspicua*, *Verticordia plumosa* var. *incrassata* and *Drummondita hassellii*.

Clearing Description

Forrestania Nickel Project.
Western Areas Limited proposes to clear up to 55 hectares of native vegetation, within a total boundary of approximately 745 hectares, for the purposes of constructing a dewatering pipeline and evaporation ponds. The evaporation ponds are to be constructed on largely cleared farmland, whilst the pipeline will follow the existing Carstairs and Mulcahy Roads. The project is located approximately 30 kilometres north of Lake King, in the Shires of Kondinin and Lake Grace.

Vegetation Condition

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

To:

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).

Comment

Based on a site inspection by the assessing officer in November 2007, the vegetation condition has been rated as ranging from excellent within the parts of the road reserves to good within the patches of vegetation remaining within the cleared areas. The vegetation type 'Cleared Farmland' is completely degraded.

Clearing will be via bulldozer or grader, blade down.

Clearing permit CPS 2424/1 was granted by the Department of Mines and Petroleum (DMP) on 15 January 2009 and was valid from 14 February 2009 to 31 July 2014. The clearing permit authorised the clearing of up to 55 hectares of native vegetation. An application for an amendment was submitted to the DMP on 9 April 2014 to extend the duration of the permit for an additonal five years to cover future clearing and change the name of the permit holder from Western Areas NL to Western Areas Limited. The permit boundary was also reduced and Miscellaneous Licence 70/109 removed from the permit because the tenement was withdrawn. The amount of clearing authorised will remain the same.

3. Assessment of application against clearing principles

Comments

Western Areas Limited has applied to extend the duration of the clearing permit by five years and update the permit holder from Western Areas NL to Western Areas Limited. Miscellaneous Licence 70/109 has been withdrawn and therefore it has been removed from the permit and permit boundary for this amendment, reducing the permit boundary from 823 hectares to 745 hectares. The amount of clearing authorised (55 hectares) will remain the same. There are no additional environmental impacts associated with this amendment. Therefore, the assessment against the clearing principles has not changed and can be found in the Clearing Permit Report CPS 2424/1.

Methodology

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

Comments

There is one Native Title Claim (WC2003/006) over the area under application (GIS Database). 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 (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.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims – Registered with the NNTT

4. References

Botanica Consulting (2006) Flora and Vegetation Survey of Digger Rocks and the RT Pipeline Corridor (M74/58, M74/90, M74/57 & L77/44). Unpublished report prepared for Western Areas NL by Botanica Consulting.

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

SLIP (2008) Shared Land Information Platform http://spatial.agric.wa.gov.au/slip/home.htm.

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.