



Clearing Permit Assessment Report

1. Application details

1.1. Permit application details

Permit application No.: 6732/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Norwest Sand & Gravel Pty Ltd**
Postal address: PO Box 1434 Wangara WA 6947
Contacts: Phone: 08 9309 0400
Fax: 08 9309 0411
Email: steve@austwidemining.com.au

1.3. Property details

Property: Mining Lease 47/389
Mining Lease 47/526
Mining Lease 47/527
Miscellaneous Licence 47/349
Colloquial name: Point Samson Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
17.52		Mechanical Removal	Mineral Production and Associated Infrastructure

1.5. Decision on application

Decision on Permit Application:
Decision Date:

2. Background

2.1. History (including previous clearing permits, compensation paid, caveats on title deeds etc.)

Date	Comments
10 September 2015	To be advertised on Monday, 14 September 2015.
15 September 2015	OEPA MoU triggered. Email sent to OEPA.
29 September 2015	OEPA responded to email. NVCP application not significant. Formal referral to the OEPA not required.

2.2. Existing environment and information

2.2.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>Beard vegetation associations have been mapped for the whole of Western Australia and are useful to look at vegetation in a regional context. One Beard vegetation association has been mapped within the application area (GIS Database):</p> <p>157: Hummock grasslands, grass steppe; hard spinifex, <i>Triodia wiseana</i></p> <p>A survey conducted by Minesite Rehabilitation Services Pty Ltd (MRS, 1996) described the vegetation within the application area as:</p> <p><i>Relatively stable hind dunes consisting mainly of wattle communities with spinifex, creepers, herbs and introduced species such as buffel grass and kapok (MRS, 2012).</i></p>	<p>Point Samson Project. Norwest Sand & Gravel Pty Ltd proposes to clear up to 17.52 hectares of native vegetation within a total boundary of 17.52 hectares for the purpose of mineral production and associated infrastructure. The project is located approximately 800 meters west of Point Samson, in the City of Karratha.</p>	<p>Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994);</p> <p>To:</p> <p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).</p>	<p>Vegetation condition was determined by MRS (1996) using the Keighery scale.</p>

2.2.2. Items of interest

Theme	Value	Within meters
-------	-------	---------------

3. Permit assessment activities

Date	Activity	Comment	Trim Ref.
------	----------	---------	-----------

4. Assessment of application against Clearing Principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments **Proposal is not likely to be at variance to this Principle**

The application area occurs within the Roebourne subregion of the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by quaternary alluvial and older colluvial coastal and sub-coastal plains with a grass savannah of mixed bunch and hummock grasses (CALM, 2002).

A flora and vegetation survey was conducted by MRS over the application area in 1996 (MRS, 1996). A total of 47 flora taxa (including subspecies and varieties) representing 21 families and 44 genera were recorded from the application area during the flora and vegetation survey (MRS, 1996).

No Threatened flora, Priority flora or vegetation associations of restricted distribution were recorded within the application area during the flora and vegetation survey (MRS, 1996).

Two introduced flora species were recorded within the application area; *Cenchrus ciliaris* (Buffel Grass) and *Aerva javanica* (Kapok Bush). These introduced flora species are not Declared Pests or listed as weeds of National Significance (MRS, 1996). Potential impacts on biological diversity from weeds may be minimised by the implementation of a weed management condition.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology CALM (2002)
MRS (1996)
GIS Database:
- IBRA WA (Regions - Subregions)
- Threatened and Priority Flora
- Threatened Ecological Sites Buffered

Officer Stephen Danti

(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.

Comments **Proposal is not likely to be at variance to this Principle**

The flora and vegetation survey identified three main fauna habitats features within the application area; grasslands, sand dunes and mudflats (MRS, 1996).

The fauna habitats within the application area were not considered to be unique and extended beyond the proposed application area (MRS, 1996). Given the relatively small scale of the proposed clearing (17.52 hectares) and that fauna habitats within the application area are similar to the surrounding area, it is considered unlikely that the proposed clearing will have a significant impact on habitat critical for the survival of fauna indigenous to Western Australia.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology MRS (1996)
Officer Stephen Danti

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments **Proposal is not likely to be at variance to this Principle**

There are no records of Threatened Flora within the application area (GIS Database).

The flora and vegetation assessment conducted by MRS over the application area did not record any Threatened Flora (MRS, 1996).

Three Threatened flora species; *Lepidium catapycnon*, *Thryptomene wittweri* and *Aluta quadrata* are known from the Pilbara region. The application area is situated outside the known distribution for these species (GIS Database).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology MRS (1996)
GIS Database:
- Threatened and Priority Flora
Officer Stephen Danti

(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.

Comments **Proposal is not likely to be at variance to this Principle**
The application area is not located within a Threatened Ecological Community (GIS Database).

The flora and vegetation assessment conducted by MRS over the application area did not record any Threatened Ecological Communities (MRS, 1996).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology MRS (1996)
GIS Database:
- Threatened Ecological Sites Buffered
Officer Stephen Danti

(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.

Comments **Proposal is not at variance to this Principle**
The application area falls within the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion in which approximately 99% of the Pre-European vegetation remains (see table) (GIS Database; Government of Western Australia, 2013).

The vegetation of the application area has been mapped as the following Beard vegetation association (GIS Database):

157: Hummock grasslands, grass steppe; hard spinifex, *Triodia wiseana*.

Approximately 99% of Beard vegetation association 157 remains at state and bioregion level (Government of Western Australia, 2013). Therefore, the area proposed to be cleared is unlikely to represent a significant remnant of native vegetation within an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DPaW Managed Lands
IBRA Bioregion - Pilbara	17,808,657.06	17,733,583.95	~99.58	Least Concern	8.43
Beard vegetation associations - State					
157	502,728.56	499,311.84	~99.32	Least Concern	18.19
Beard vegetation associations - Bioregion					
157	502,647.77	499,302.72	~99.33	Least Concern	18.19

* Government of Western Australia (2013)

** Department of Natural Resources and Environment (2002)

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology Department of Natural Resources and Environment (2002)
Government of Western Australia (2013)
GIS Database:
- IBRA WA (Regions - Subregions)
- Pre-European Vegetation
Officer Stephen Danti

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is not likely to be at variance to this Principle

There are no permanent or ephemeral water bodies or watercourses within the application area (GIS Database).

No vegetation associated with a permanent or ephemeral watercourse or wetland was recorded within the application area during the flora and vegetation survey (MRS, 1996).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology MRS (1996)
GIS Database:

- Hydrography, Linear

Officer Stephen Danti

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal is not likely to be at variance to this Principle

The application area is located within the Littoral land system which is described as 'Bare coastal mudflats with mangroves on seaward fringes, samphire flats, sandy islands, coastal dunes and beaches' (GIS Database; Van Vreeswyk et al, 2004).

About 70% of the Littoral system is tidal flat which supports no vegetation, coastal dunes are highly susceptible to wind erosion if plant cover is lost by fire or other disturbance; mangrove communities are significant habitats (Van Vreeswyk et al, 2004). Potential impacts caused by soil erosion may be minimised by the implementation of a staged clearing condition.

Given the small scale and the relatively low impact of the proposed clearing activities it is unlikely that the associated clearing will cause appreciable land degradation.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Van Vreeswyk et al. (2004)
GIS Database:

- Rangeland Land System Mapping

Officer Stephen Danti

(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.

Comments Proposal is not likely to be at variance to this Principle

The application area does not lie within any conservation areas (GIS Database).

The nearest conservation area is Murujuga National Park which lies approximately 15 kilometres north-west of the application area (GIS Database). Given the distance between the application area and the National Park, the proposed clearing is not likely to impact the environmental values of this conservation area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:
- DPaw Tenure

Officer Stephen Danti

(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.

Comments Proposal is not likely to be at variance to this Principle

The application area is not located within a Public Drinking Water Source Area and there are no permanent or ephemeral water bodies or watercourses within the application area (GIS Database).

Groundwater salinity within the application area is between 7,000 and 14,000 milligrams/Litre Total Dissolved Solids (TDS) which is considered to be relatively saline (GIS Database). The proposed clearing is not likely to cause groundwater or surface water quality within the application area to alter significantly.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:
- Groundwater Salinity, Statewide
- Hydrography, Linear
- Public Drinking Water Source Areas (PDWSAs)

Officer Stephen Danti

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments Proposal is not likely to be at variance to this Principle

The climate of the Pilbara region is mostly hot and dry, with highly variable rainfall throughout the year (BoM, 2015). The Pilbara has an arid-tropical climate with two distinct seasons, a hot and wet summer from October to April; and a mild, drier season from May to September (BoM, 2015).

Natural flood events do occur in the Pilbara region following cyclonic activity. However, the proposed clearing is not expected to increase the incidence or intensity of such events given the size of the area to be cleared (17.52 hectares) in relation to the catchment area (GIS Database).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:
- Hydrographic Catchments - Catchments
- Hydrography, Linear
- Rainfall, Mean Annual

Officer Stephen Danti

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

There is one Native Title Claim (WC1999/014) over the application area (DAA, 2015). This claim has been filed at the federal court on behalf of the claimant groups. 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 is one Aboriginal Site 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, the Department of Water, and the Department of Parks and Wildlife, 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 14 September 2015 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the application.

Methodology DAA (2015)
GIS Database:
- Aboriginal Sites Register System

Officer Stephen Danti

5. Assessor's recommendations

Comment / recommendation

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 not likely to be at variance to Principles (a), (b), (c), (d), (f), (g), (h), (i) and (j), and is not at variance to Principle (e).

6. References

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management, Western Australia.

DAA (2015) Department of Aboriginal Affairs (WWW Search – Aboriginal Heritage Inquiry System). Retrieved from <http://maps.dia.wa.gov.au/AHIS2/> on 16 September 2015.

Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.

Government of Western Australia (2013) 2013 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.

Van Vreeswyk A.M.E., Payne A.L., Leighton K.A. and Hennig P. (2004) Technical Bulletin - An Inventory and Condition Survey of the Pilbara Region, Western Australia, No. 92. Department of Agriculture, Perth, Western Australia.

MRS (1996). Support Document to Accompany Application for a Mining Lease at Point Samson. Unpublished report prepared by Minesite Rehabilitation Service Pty Ltd for Norwest Sand and Gravel Pty Ltd, Perth, Western Australia.