



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5359/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: **NTC Contracting Pty Ltd**

1.3. Property details

Property: Mining Lease 08/311
Local Government Area: Shire of Ashburton
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 10 January 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 and are useful to look at vegetation in a regional context. One Beard vegetation association has been mapped within the application area:

Beard vegetation association 127: Bare areas; mudflats (Government of Western Australia, 2011; GIS Database).

No vegetation and flora surveys have been conducted over the application area. Chevron (2010) has undertaken a vegetation survey in 2010 in an area 5 kilometres from the application area, which has a similar lying area:

Inland Sand Plains

- *Acacia tetragonophylla* scattered shrubs over *Triodia epactia* hummock grassland with *Cenchrus ciliaris* open tussock grassland occurring on sandy plains, particularly fringing claypans; and
- *Prosopis pallida*, *Acacia sclerosperma* subsp. *sclerosperma*, *A. tetragonophylla* scattered tall shrubs over *Triodia epactia* and *Cenchrus ciliaris* open tussock grassland (Chevron, 2010).

Clearing Description

NTC Contracting Pty Ltd is proposing to clear up to 9.6 hectares of native vegetation for mineral production. The clearing of vegetation is required for the expansion of a mine open pit area.

The vegetation will be cleared using a loader.

Vegetation Condition

Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).

Comment

The application area is located in the Cape Range subregion of Western Australia and is situated approximately 6 kilometres south-east of the Onslow town site (GIS Database).

The vegetation condition was derived from aerial imagery (GIS Database).

3. 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 Cape Range subregion of the Carnarvon Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This subregion is characterised by a mosaic of saline alluvial plains with samphire and saltbush low shrublands, Bowgada low woodland on sandy ridges and plains, Snakewood scrub on clay flats, and tree to shrub steppe over hummock grasslands on and between red sand dune fields. Cape Range and Giraliala dunefields form the northern part of Carnarvon Basin, which consist of

rugged tertiary limestone ranges and extensive areas of red aeolian dunefield, Quaternary coastal beach dunes and mud flats. *Acacia* shrublands over *Triodia* are found on limestone (*Acacia stuartii* or *A. bivenosa*) and red dunefields, and *Triodia* hummock grasslands with sparse *Eucalyptus* trees and shrubs on the Cape Range. Extensive hummock grasslands (*Triodia*) are on the Cape Range and eastern dune-fields (CALM, 2002).

No vegetation and flora surveys have been conducted over the application area. Chevron (2010) has undertaken a vegetation survey in 2010 in an area 5 kilometres from the application area which identified two vegetation communities. This survey area has a similar lying area as the application area (Chevron, 2010). Aerial imagery suggests that the vegetation types within the application area are common and widespread within the subregion (GIS Database). The condition of the vegetation types has been inferred from Chevron (2010) and aerial imagery as 'good' (Keighery, 1994; Chevron, 2010; GIS Database).

A search on the Department of Environment and Conservation's Threatened and Priority Flora databases revealed no Threatened Flora species and two Priority Flora species that may potentially occur in the application area; *Eremophila forrestii* subsp. *viridis* Priority 3 (P3) and *Triumfetta echinata* (P3) (DEC, 2012). Based on the Chevron (2010) vegetation types, suitable habitat for either Priority Flora species is not present within the application area (DEC, 2012). The clearing of 9.6 hectares of native vegetation is not likely to significantly influence the conservation status of these flora species (DEC, 2012; GIS Database).

There are no Threatened Ecological Communities or Priority Ecological Communities recorded within the application area (GIS Database).

There was one species of weed identified in the Chevron (2010) vegetation survey; *Cenchrus ciliaris* (Buffel Grass). Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

There was one faunal habitat identified within the application area (Chevron, 2010; GIS Database). The habitat within the application area is considered to be common and widespread within the subregion and faunal assemblages are unlikely to be different to that found in similar habitat located elsewhere in the region (Chevron, 2010; GIS Database). The clearing of 9.6 hectares of native is unlikely to have a significant impact on fauna in a regional or local context.

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

Methodology CALM (2002)
Chevron (2010)
DEC (2012)
Keighery (1994)
GIS Database:
- IBRA WA (Regions - Subregions)
- Pilbara Coastline Exmouth Cape Preston 50cm Orthomosaic - Landgate 2004
- Pre-European vegetation
- Threatened Ecological Sites Buffered

(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**

There was no fauna survey conducted over the application area. Chevron (2010) conducted a vegetation survey over a similar lying area as the application area 5 kilometres away. Chevron (2010) identified one broad habitat type within the application area which is described as:

- Inland Sand Plains.

Aerial imagery suggests that the habitat present within the application area appears to be abundant within the local area, and in a 'good' condition (Keighery, 1994; GIS Database). Chevron (2010) identified that the habitat type within the study area was well represented in the locality and wider region and not of conservation significance. There were two conservation significant species listed as Threatened Species under the *Environment Protection and Biodiversity Conservation Act 1999* or protected under Western Australian legislation (*Wildlife Conservation Act, 1950*), that may potentially occur within the application area; the Rainbow Bee-eater (*Merops ornatus*) (EPBC Act – Migratory species) and Western Pebble-mound Mouse (*Pseudomys chapmani*) (DEC – Priority 4) (DEC, 2012). The application area does not appear to contain habitats or faunal assemblages that are ecologically significant and the habitats are common throughout the local and regional area (GIS Database).

The proposed clearing of 9.6 hectares of native vegetation is not likely to impact critical feeding or breeding habitat for any conservation significant fauna species as the application area does not contain significant habitat for the potential species.

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

Methodology Chevron (2010)
 DEC (2012)
 Keighery (1994)
 GIS Database:
 - Pilbara Coastline Exmouth Cape Preston 50cm Orthomosaic - Landgate 2004

(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

According to available databases, there are no records of Threatened Flora within the application area (GIS Database). A search of the Department of Environment and Conservation's Threatened and Priority Flora databases identified no Threatened Flora species as occurring within a 20 kilometre radius of the application area (DEC, 2012).

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

Methodology DEC (2012)
 GIS Database:
 - Threatened and Priority 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.

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

A search of the available databases shows that there are no Threatened Ecological Communities situated within 100 kilometres of the application area (GIS Database).

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

Methodology GIS Database:
 - Threatened Ecological Sites Buffered

(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 IBRA bioregion (GIS Database). The vegetation within the application area is recorded as:

Beard vegetation association 127: Bare areas; mudflats (Government of Western Australia, 2011; GIS Database).

Beard vegetation association 127 retains approximately 98% of its pre-European extent respectively, within the bioregion (Government of Western Australia, 2011). The area proposed to be cleared is not a significant remnant of native vegetation.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Carnarvon	8,382,609	8,360,610	~99.74	Least Concern	3.60
Beard vegetation associations - State					
127	736,894	696,581	~94.53	Least Concern	7.91
Beard vegetation associations - Bioregion					
127	120,670	101,399	~98.76	Least Concern	1.06

* Government of Western Australia (2011)

** 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 (2011)
GIS Database:
- IBRA WA (regions - subregions)
- Pre-European vegetation

(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 at variance to this Principle

According to available databases, there are no watercourses or wetlands within the application area (GIS Database). The vegetation within the application area is not considered to be growing in association with any watercourse or wetland.

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

Methodology GIS Database:
- Geodata, Lakes
- Hydrography, Linear

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

Comments Proposal may be at variance to this Principle

The application area is broadly mapped as the Dune land system (GIS Database). The Dune land system is described as dune fields supporting soft spinifex grasslands (GIS Database).

Aerial imagery suggests that the topography of the application area is of low relief (GIS Database). Given the low the rainfall and significantly higher evapotranspiration rates for the local area (BoM, 2012), there is a low risk of water logging through rainfall within the application area.

Groundwater is saline with low lying coastal soils characterised by a tidal influence aquifer of salty water (GIS Database). The proposed clearing of 9.6 hectares is unlikely to exacerbate salinity levels.

Given the sandy nature of the soils, erosion through wind mechanisms may occur during earth works. Potential land degradation impacts as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

Based on the above, the proposed clearing may be at variance to this Principle.

Methodology BoM (2012)
GIS Database:
- Groundwater Salinity, Statewide
- Rangeland Land System Mapping
- Pilbara Coastline Exmouth Cape Preston 50cm Orthomosaic - Landgate 2004

(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 is not located within any conservation areas (GIS Database). The nearest conservation area is Locker Island Nature Reserve, located approximately 33 kilometres west of the application area (GIS Database). Given the distance and the body of water separating Locker Island Nature Reserve and the application area, the proposed clearing is not likely to impact the environmental values of the proposed conservation area.

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

Methodology GIS Database:
- DEC Tenure

(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 (GIS Database). The application area is located within the proclaimed Pilbara groundwater area under the *Rights in Water and Irrigation Act 1914* (GIS Database). Any groundwater extraction and/or taking or diversion of surface water for the purposes other than domestic and/or stock watering is subject to licence by the Department of Water.

There are no permanent watercourses within the application area (GIS Database). Any surface water within the application area is likely to only remain for short periods following significant rainfall events. The proposed clearing is not likely to cause deterioration in the quality of any surface water within or outside of the application area.

The application area has a groundwater salinity that is Saline (7,000 - 14,000 milligrams/Litre Total Dissolved solids (TDS) (GIS Database). The proposed clearing of 9.6 hectares of native vegetation is unlikely to further deteriorate the quality of underground water (GIS Database).

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

Methodology GIS Database:
- Geodata, Lakes
- Groundwater Salinity, Statewide
- Hydrography, Linear
- Public Drinking Water Source Areas
- RIWI Act, Groundwater Areas

(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 application area experiences an arid (semi-desert) to subtropical climate, with an annual average rainfall of approximately 321.8 millimetres per year (CALM, 2002; BoM, 2012). Based on an average annual evaporation rate of 3,200 - 3,600 millimetres (BoM, 2012), any surface water resulting from rainfall events is likely to be relatively short lived.

Given the size of the area to be cleared (9.6 hectares) compared to the size of the Coastal catchment area (10,876 hectares) (GIS Database) it is not likely that the proposed clearing will lead to an appreciable increase in run off, and subsequently cause or exacerbate the incidence or intensity of flooding.

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

Methodology BoM (2012)
CALM (2002)
GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

There is one Native Title claim over the area under application (GIS Database). The claim WC99/45 was determined by the Federal Court on 18 September 2008. 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 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 clearing permit application was advertised on 26 November 2012 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 - Determined by the Federal Court
- Native Title Claims - Registered with the NNTT

4. References

- BoM (2012) Climate Statistics for Australian Locations. A Search for Climate Statistics for Onslow Airport, Australian Government Bureau of Meteorology, viewed 2 January 2013, <http://reg.bom.gov.au/climate/averages/tables/cw_005017.shtml>.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Carnarvon 1 (CAR1 ? Cape Range subregion) Department of Conservation and Land Management, Western Australia.
- Chevron Australia Pty Ltd (Chevron) (2010) Wheatstone Project LNG Plant Construction Terrestrial Fauna Management Plan, Revision: 2. Internal Document, September 2012.
- DEC (2012) NatureMap - Mapping Western Australia Biodiversity, Department of Environment and Conservation, viewed 7 December 2012, <<http://naturemap.dec.wa.gov.au>>.
- 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 (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.

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.