



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5083/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Chevron Australia Pty Ltd

1.3. Property details

Property: Petroleum Lease L 1H R2
Local Government Area: Shire of Ashburton
Colloquial name: Barrow Island Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.65		Mechanical Removal	Installation and Operation of an Asphalt Batching Plant and Laydown Area

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 9 August 2012

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. One Beard vegetation association has been mapped within the application area (GIS Database):

667: Hummock grasslands, shrub-steppe; scattered shrubs over *Triodia wiseana* & *Triodia* sp. aff. *angusta*.

The vegetation within the application area has previously been cleared and the land since rehabilitated with a low level of success (Chevron, 2012).

Clearing Description Chevron Australia Pty Ltd is proposing to clear up to 1.65 hectares of native vegetation for the purpose of installing a batch plant and associated activities.

Clearing will be conducted by mechanical means.

Vegetation Condition Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

Comment The application area is located within the Carnarvon region of Western Australia and is situated on Barrow Island, approximately 55 kilometres off the Pilbara coast.

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**

Barrow Island is approximately 23,000 hectares in size, and is the largest island in the Barrow group and the second largest island in Western Australia. The island is located approximately 55 kilometres off the Pilbara coast, however the vegetation of Barrow Island is unlike that of any other island off the Pilbara coast, and is more closely related to that of the Cape Range area (Conservation Commission, 2003). The Biodiversity Audit of Western Australia (CALM, 2002), classified Barrow Island as part of the Cape Range subregion of the Carnarvon Bioregion.

Barrow Island is an A Class Nature Reserve that has been recognised internationally for its extremely high biodiversity conservation values (Conservation Commission, 2003). It is an important refuge for marsupials, subterranean fauna and sea turtles (CALM, 2002). Barrow Island is best known for its abundant mammals, including several species that have either declined in numbers or become extinct on the mainland (Conservation Commission, 2003).

Barrow Island is the site of a large on-shore oilfield, operational since the 1960's. The island is criss-crossed by numerous seismic lines from previous petroleum exploration activities, and by pipelines carrying oil from more than 400 oil wells operating on the island, to the storage tanks located on the eastern side of the island (Chevron, 2012).

The application area is located over areas which have previously been cleared and are now areas of rehabilitation. Due to the previously disturbed nature of the application area, no flora or fauna surveys have been conducted. Given the small size of the application area, 1.65 hectares of rehabilitated vegetation, compared to the size of Barrow Island, approximately 23,000 hectares of largely intact vegetation, the proposed clearing is considered unlikely to impact the biological diversity on Barrow Island.

The application area lies within the buffer zone of numerous Priority Ecological Communities (PEC's) (GIS Database). Given the application area consists of previously cleared land currently supporting rehabilitated vegetation, it is considered unlikely that the proposed clearing will impact on the values of any PEC's.

The Department of Environment and Conservation (DEC)(2012) has highlighted the importance of ensuring adequate weed control measures are in place during this project as it is essential to prevent the potential spread and proliferation of weeds within the application area. Potential impacts from weed species 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)
Chevron (2012)
Conservation Commission (2003)
DEC (2012)

(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

Barrow Island supports a large number of fauna species, including several threatened species, and is widely recognised as an important refuge for terrestrial mammals which are either no longer found or are greatly reduced in numbers on the mainland (CALM, 2002; Conservation Commission, 2003).

According to Chevron (2012), the application area has been rehabilitated within the last 10 years with a low level of success and has limited structure. It is therefore considered unlikely that the application area comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

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

Methodology CALM (2002)
Chevron (2012)
Conservation Commission (2003)

(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 known Threatened Flora species located on Barrow Island (GIS Database).

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

Methodology 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 at variance to this Principle

According to available databases there are no Threatened Ecological Communities (TEC's) within the application area (GIS Database). Additionally, according to available databases there are no TEC's on Barrow Island.

Based on the above, the proposed clearing is not 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 is located within the Carnarvon Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). The Government of Western Australia (2011) reports that approximately 99.74% of the pre-European vegetation remains in the Carnarvon bioregion.

The vegetation within the application area has been broadly mapped as a the following Beard vegetation association:

667: Hummock grasslands, shrub-steppe; scattered shrubs over *Triodia wiseana* & *Triodia* sp. indet. aff. *angusta*.

According to the Government of Western Australia (2011) approximately 98.29% of Beard vegetation association 667 remains within the Carnarvon Bioregion (see table below).

	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	~3.62
Beard vegetation associations - State					
667	21,832	21,459	~98.29	Least Concern	~99.79
Beard vegetation associations - Bioregion					
667	21,832	21,459	~98.29	Least Concern	~99.79

* Government of Western Australia (2011)

** Department of Natural Resources and Environment (2002)

The vegetation within the application area is not considered to be a remnant of native vegetation in an area that has been extensively cleared.

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 likely to be at variance to this Principle**
 According to available databases, there are no perennial or non-perennial wetlands or watercourses within the application area (GIS Database).

According to a flora survey of the application area conducted by Mattiske Consulting in 1993, approximately 0.3 hectares of a vegetation community associated with drainage channels occurs within the application area (cited in Chevron, 2012). As the application area has previously been cleared, the proposed clearing is not likely to impact upon the values of this community.

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

Methodology Chevron (2012)
 GIS Database:
 - Hydrography, linear

(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 occurs on previously disturbed land which has been rehabilitated (Chevron, 2012). It is considered unlikely that the proposed clearing will cause further appreciable land degradation. Potential

degradation as a result of the land remaining open after the proposed activities have been completed may be minimised by the implementation of a rehabilitation condition.

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

Methodology Chevron (2012)

(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 at variance to this Principle

The application area is located within a Class A Nature Reserve, Barrow Island Nature Reserve (GIS Database). The DEC (2012) notes that Barrow Island Nature Reserve is one of the most important conservation reserves in the state as it is an important biological refuge due to its isolation from the mainland and the low number of introduced species. Barrow Island is also known for its high levels of faunal diversity and contains 22 endemic fauna species (DEC, 2012).

The DEC has identified the potential for weed species *Cenchrus ciliaris* and *Malvastrum americanum* to spread throughout the application area. Potential impacts to the Barrow Island Nature Reserve may be minimised by the implementation of a weed management condition.

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

Methodology DEC (2012)
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

Barrow Island has an arid subtropical climate, with an average annual rainfall of 320 millimetres (Chevron, 2012). Rainfall is highly variable and frequently associated with cyclones, which occur between November and early April (Chevron, 2012).

There are no permanent watercourses or water bodies within the application area (GIS Database), and the proposed clearing is unlikely to significantly alter surface water flows.

The clearing of 1.65 hectares of previously cleared vegetation is considered unlikely to have any impact on groundwater levels or quality.

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

Methodology Chevron (2012)
GIS Database:
- Hydrography, linear

(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

Barrow Island has an arid, sub-tropical climate, and receives variable summer and winter rainfall (CALM, 2002). This region is prone to seasonal cyclones and natural flooding may occur occasionally during the wet season (November to March). According to available databases, there are no wetlands or watercourses within the application area (GIS Database). Additionally, the vegetation in the application area has previously been cleared and these areas have not previously caused or exacerbated the incidence or intensity of flooding (Chevron, 2012).

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

Methodology CALM (2002)
Chevron (2012)
GIS Database:
- Hydrography, linear

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 petroleum 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 30 April 2012 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the proposed clearing.

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

4. References

- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management.
- Chevron (2012) Chevron's Clearing Assessment Report. Unpublished report addressing the 10 Clearing Principles.
- Conservation Commission (2003) Biodiversity values on Barrow Island Nature Reserve and the Gorgon Gas Development. Advice to the Government from the Conservation Commission of Western Australia. Perth, Western Australia.
- DEC (2012) Request for Advice - Chevron Australia Pty Ltd - CPS 123/5, CPS 4997/1 and CPS 5083/1. Advice received 2 July 2012.
- 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.

