



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5691/1
Permit Holder:	The University of Western Australia
Duration of Permit:	14 September 2013 – 14 September 2015

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of archaeological excavations.

2. Land on which clearing is to be done

Lot 3000 on Deposited Plan 91514 (Reserve 11648), Barrow Island

3. Area of Clearing

The Permit Holder must not clear more than 0.0022 hectares of native vegetation within the area shaded yellow on attached Plan 5691/1a and Plan 5691/1b.

4. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

5. Compliance with Assessment Sequence and Management Procedures

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

7. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- avoid the clearing of native vegetation;
- minimise the amount of native vegetation to be cleared; and
- reduce the impact of clearing on any environmental value.

8. Weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

- clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

- (b) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

9 Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil;
- (b) backfill the archaeological excavation with excavated material;
- (c) within one month following completion of archaeological excavations, *revegetate* and *rehabilitate* areas no longer required for the purpose for which they were cleared under this Permit by:
 - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land; and
 - (ii) deliberately laying the vegetative material and topsoil retained under condition 9(a) over the cleared area(s).

DEFINITIONS

The following meanings are given to terms used in this Permit:

fill means material used to increase the ground level, or fill a hollow;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area;

weed/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in the former Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned.



M Warnock
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

15 August 2013

Plan 5691/1a



LEGEND

- Barrow and Montebello Islands 80cm Orthomosaic - Landgate 10/01
- Local Government Authorities
- Clearing Instruments
- Areas Approved to Clear
- Cadastre for labelling

* Project Data is denoted by asterisk.
This data has not been quality assured.
Please contact map author for details.



0 200 m

Scale 1:7297
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geographic distortion or measurement inaccuracies.

submitted 15/8/13

M. Wilmcock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



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Department of Environment Regulation
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Plan 5691/1b



LEGEND

- Barrow and Montebello Islands 80cm Orthomosaic - Landgate 10/01
- Local Government Authorities Clearing Instruments
- Areas Approved to Clear
- Cadastral for labelling

* Project Data is denoted by asterisk.
This data has not been quality assured.
Please contact map author for details.



0 250 m

Scale 1:9244

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M Wainrock Date 15/9/13

M Wainrock
Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

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Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 5691/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: The University of Western Australia

1.3. Property details

Property: LOT 3000 ON PLAN 91514 (BARROW ISLAND 6712)
Local Government Area: Shire of Ahburton
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.002		Cutting	Miscellaneous

1.5. Decision on application

Decision on Permit Application:
Decision Date:

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Vegetation under application is mapped as Beard Vegetation Associations:	The Barrow Island Archaeology Project: the dynamism of maritime societies in northern Australia.	Pristine: No obvious signs of disturbance (Keighery 1994)	The vegetation on Barrow Island is generally floral assemblages dominated by <i>Triodia</i> grasslands and shrubby <i>Acacia</i> and <i>Melaleuca</i> species (Mattiske Consulting 1997).
667 - Hummock grasslands, shrub-steppe: scattered shrubs over <i>Triodia wiseana</i> and <i>T. sp. indet. aff. angusta</i> over the majority of the island, and	The application is to clear upto 0.0022 hectares of native vegetation over two distinct geographical locations for archaeological excavations within Barrow Island Nature Reserve.	To Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Vegetation over the majority of the island has been disturbed historically for seismic activity and petroleum production. In areas other than these disturbed areas, vegetation is intact.
117 - Hummock grasslands, grass steppe, soft spinifex along the south coast and extending northwards (Shepherd et al 2001).			Generally, extant vegetation in undisturbed areas appears to be in pristine condition, with introduced species (including weeds) restricted to established infrastructure, such as buildings (Mattiske Consulting 1997).

3. Assessment of application against clearing principles

Comments

The application to clear up to 0.0022 hectares of native vegetation, over two distinct locations, for archaeological excavations within Barrow Island Nature Reserve, is unlikely to have any significant environmental impacts.

The vegetation is considered to be in a pristine to very good (Keighery, 1994) condition and consists predominately of spinifex hammocks (*Triodia sp.*) (UWA, 2013).

There are two priority flora species (*Cucumins sp.* - Priority 2 and *Corchorus sp.* - Priority 3) recorded within a 5 kilometre radius on similar soil and vegetation types as the applied areas. However the combined clearing area is small (0.0022 hectares) and it is not considered likely for the proposed clearing to include habitat for these species or contain a high level of biodiversity.

The Island is also known for the Priority One, Priority Ecological Community - the Barrow Island stygofauna and troglofauna subterranean fauna community. As the combined clearing area is small (0.0022 hectares), it is not considered likely for the proposed clearing to impact this subterranean environment.

The proposed clearing is within the Barrow Island Nature Reserve. Given the combined clearing area is small (0.0022 hectares), it is not considered likely for the proposed clearing to impact the environmental values of this conservation area. Any possible introduction or spread of weeds will be managed by weed management practices.

Consideration has been given to impacts to remnant vegetation values, wetlands, watercourses, land degradation, surface water quality, groundwater quality, and flooding. The assessment has found that the clearing under application is not likely to be at variance to any of the clearing Principles.

Methodology

References:

- Keighery (1994)
- Mattiske (1997)
- Shepherd et al (2001)
- UWA (2013)

GIS Datasets:

- Hydrology, linear
- DEC Tenure
- Groundwater salinity, statewide
- Soils, statewide
- Pre-European Vegetation
- SAC Biodatasets Accessed August 2013

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

Comments

The archaeological investigations have received approval under section 16 of the Aboriginal Heritage Act 1972 (UWA, 2013).

The Department of Parks and Wildlife (DPaW, 2013) and Chevron Australia (lease holder on Barrow Island) (UWA, 2013) support the project.

No submissions from the public have been received.

Methodology

References

- DPaW (2013)
- UWA (2013)

4. References

- DPaW (2013) Advice received for Clearing Permit CPS 5691/1 - Barrow Island Nature Reserve 11648 - University of Western Australia (DER Ref: A.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske Consulting Pty Ltd (1997). 1996 Assessment of Vegetation on Seismic Lines, Barrow Island. Report No. WAP007/005/97 prepared for West Australian Petroleum Pty Limited.
- Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- UWA (2013) Application and supporting documentation for Clearing Permit CPS 5691/1 - University of Western Australia - Barrow Island Nature Reserve 11648 - Shire of Ashburton (DER Ref: A653456 and A647848)

5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora