



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 4354/1
Permit Holder:	Woodside Energy Limited
Duration of Permit:	5 December 2011 to 5 December 2016

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 constructing temporary workers accommodation, associated infrastructure and utilities connection.
- 2. Land on which clearing is to be done**
Lot 301 on Deposited Plan 45656 (Reserve 27516), Roebuck
Lot 300 on Deposited Plan 45653, Roebuck
Lot 500 on Deposited Plan 62285, Roebuck
Lot 502 on Deposited Plan 62285, Roebuck
Lot 424 on Plan 218390 (Broome Road reserve), Roebuck
- 3. Area of Clearing**
The Permit Holder must not clear more than 27 hectares of native vegetation within the area hatched yellow on attached Plan 4354/1.
- 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. Type of clearing authorised**
This Permit authorises the Permit Holder to clear native vegetation for activities to the extent that the Permit Holder has the power to clear native vegetation for those activities under the *Land Administration Act 1997* or any other written law.
- 6. 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. 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*:

- (a) 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.

8. Records to be kept

The Permit Holder must maintain the following records in relation to the clearing of native vegetation authorised under this Permit:

- (a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) the date that the area was cleared; and
- (c) the size of the area cleared (in hectares).

9. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 8 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 5 September 2016, the Permit Holder must provide to the CEO a written report of records required under condition 8 of this Permit where these records have not already been provided under condition 9(a) of this Permit.

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;

weed/s means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.



Robert Atkins
DEPUTY DIRECTOR GENERAL, ENVIRONMENT

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

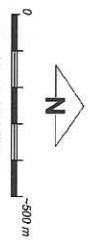
8 November 2011

Plan 4354/1



LEGEND

- Road Centrelines
- Clearing Instruments
- Areas Applied to Clear
- Areas Subject to Conditions
- Areas Approved to Clear
- Cadastre for labelling
- Broome 50cm Orthomosaic - Landgate 2007



Geocentric Datum Australia 1994
 Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

[Signature] Date 5/11/11

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.



1. Application details

1.1. Permit application details

Permit application No.: 4354/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Woodside Energy Limited

1.3. Property details

Property: LOT 301 ON PLAN 45656 (ROEBUCK 6725)
LOT 424 ON PLAN 218390 (ROEBUCK 6725)
LOT 300 ON PLAN 45653 (ROEBUCK 6725)
LOT 500 ON PLAN 62285 (Lot No. 500 WATTLE ROEBUCK 6725)
LOT 502 ON PLAN 62285 (ROEBUCK 6725)

Local Government Area: Shire of Broome
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
27		Mechanical Removal	Building or Structure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 20 October 2011

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
Shepherd (2009) describes Beard vegetation 750 as Shrublands, pindan; Acacia tumida shrubland with grey box & cabbage gum medium woodland over ribbon grass & curly spinifex.	The proposal involves clearing 27ha of vegetation within a 68.5ha application area for the purpose of a Broome temporary workers accommodation camp, associated infrastructure and utilities connection.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition rating of the application area was established through a site visit conducted by DEC officers in June 2011 (DEC 2011).

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 proposal is to clear 27 ha of native vegetation within a 68.5 ha application area, for the purpose of constructing a temporary workers accommodation camp, associated infrastructure and utilities connection in Broome. The clearing is to occur within Lot 301 on Plan 45656, Lot 300 on Plan 45653, Lot 500 on Plan 62285, Lot 502 on Plan 62285 and Lot 424 on Plan 218390, Roebuck.

The vegetation in the area appears to be in a good (Keighery 1994) condition (DEC 2011) with some weeds scattered throughout. The local area (10km radius) is highly vegetated and the area under application is surrounded by native vegetation on the south, east and west, and is bordered by Broome Road to the north. Weed management would mitigate the spread of weeds into vegetated areas abounding the application area.

There are 13 records of Priority Flora within the local area, however there are no known records within the area under application. These 13 flora records include *Glycine pindanica* (P1), *Corymbia paractia* (P1), *Nicotiana heterantha* (P1), *Tetragonia coronata* (P3) and *Pterocaulon* species (A Kimberley Flora - P2). These flora species grow in the same soil type as the proposed clearing, however it is considered that as there is a high extent of the vegetation remaining in the local area in similar or better condition, the clearing is not likely to impact on the conservation status of these species.

Given the above, the proposed clearing is not likely to be at variance to this principle.

Methodology

Reference:
DEC (2011)

Keighery (1994)

GIS databases:

- Broome 50cm Orthomosaic - Landgate 2007
- SAC Biodatasets - accessed 26 May 11

(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 are two known records of fauna of conservation significance within the local area (10km radius). The closest include the Bilby (*Macrotis lagotis*), which was recorded 200m east of application area; the Australian Bustard (*Ardeotis australis*); and the Bush Stone-curlew (*Burhinus grallarius*), both recorded 2km east of the application area. As the area under application is surrounded by large areas of remnant vegetation it is not likely to be significant habitat for any native fauna.

Given the above, the proposed clearing is not likely to be at variance to this principle.

Methodology

GIS databases:

- Broome 50cm Orthomosaic - Landgate 2007
- SAC Biodatasets - accessed 26 May 11

(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 known records of rare flora within the local area (10km radius) of the application area.

Given this, the proposed clearing is not likely to be at variance to this principle.

Methodology

GIS databases:

- Broome 50cm Orthomosaic - Landgate 2007
- SAC Biodatasets - accessed 26 May 11

(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

There is one known record of a threatened ecological community (TEC), the Roebuck Mud flats, located 9km from the application area. This TEC is situated on different soil and consists of different vegetation types than that of the application area.

Given this, the proposed clearing is not likely to be at variance to this principle.

Methodology

GIS databases:

- Broome 50cm Orthomosaic - Landgate 2007
- SAC Biodatasets - accessed 26 May 11

(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 likely to be at variance to this Principle

	Pre-European (ha)	Current extent (ha)	Remaining (%)
IBRA Bioregions*			
Dampierland	8 345 178	8 315 458	99.64
Shire*			
Shire of Broome	5 469 432	5 429 693	99.27
Beard Vegetation Association within Bioregion*			
750	1 229 175	1 227 004	99.82

* (Shepherd et al. 2009)

The local area (10km radius) is highly vegetated with approximately 90% native vegetation remaining. The Dampierland IBRA bioregion, Shire of Broome and Beard Vegetation Association 750 all have approximately 99% native vegetation remaining (Shepherd et al, 2009).

Given the above, the proposed clearing is not likely to be at variance to this principle.

Methodology References:
Shepherd et al. (2009)

GIS databases:
- Broome 50cm Orthomosaic - Landgate 2007

(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 two areas of inundation approximately 3-4km west and south west of the application area. These areas are next to the coastal waterline which is 5km south and west of the application area.

Given the distance to the nearest watercourse or wetland the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Database:
- Hydrography, linear DOW 13/7/06

(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 consists of mapped soil type AB21 - Pindan country which is characterised as gently undulating sand plain with a few small rocky sandstone residuals; no external drainage. Chief soils are red earthy sands and hummocks of siliceous sands (Northcote 1960-68).

The proposed clearing is likely to cause short term land degradation during construction, however given the highly vegetated surrounds, offsite impacts and soil erosion through wind or water runoff would be minimal.

Given the above, the proposed clearing is not likely to be at variance to this principle.

Methodology References:
Northcote (1960-68)

GIS Databases:
- Soils, Statewide DA 11/99

(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**

There are three DEC managed lands located within the local area (10km radius) of the application area. These are Reserve 37525 which lies 5.5km east of the application area; Reserve 47964 which lies 8km south west of the application and Point Coulomb Nature Reserve which is located 4.9km north of the application area.

Given the distance to these reserves, the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Databases:
- DEC Tenure
- Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02
- System 1 to 5 and 7 to 12 areas - DEC 11/7/06

(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 near surface water and therefore the proposed clearing will not cause sedimentation of waterbodies. Additionally, the groundwater salinity is less than 500mg/L which is considered low. As the application area is within a highly vegetated area, the proposed clearing would not significantly alter salinity.

Given the above, the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Database:
- Groundwater Salinity Statewide DoW 13/07/06

- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrographic catchments, subcatchments - DoW 01/06/07
- Hydrography, linear - DOW 13/7/06

(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 local area (10km radius) is highly vegetated and given this the proposed clearing is not likely to increase the duration of flood peak or incrementally increase peak flood height.

Given the above the proposed clearing is not likely to be at variance to this principle.

Methodology GIS databases:
- Broome 50cm Orthomosaic - Landgate 2007

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

Comments

The proposal is to clear 27 hectares for the purpose of constructing temporary workers accommodation, associated infrastructure and utilities connection. The accommodation is proposed to accommodate a transient workforce with the potential to undertake construction of initial development activities at the Browse LNG Precinct.

Department of Water (DoW) has advised that the proposed land use is compatible with P3 area of the Public Drinking Water Source Area "Broome Reserve Water source Protection Plan". Provided that it is based on the best available environmental management practice. DoW also advised that the area is down-gradient of the water reserve production bores and outside of the wellhead protection zone of the southernmost bore (DoW 2011). DoW does not object to the clearing.

The Shire of Broome granted planning approval for the purpose of temporary workers accommodation and associated infrastructure in April 2011, conditional on the requirements of the DoW and Water Corporation. This includes the development being connected to deep sewerage and appropriate stormwater management.

Regional Development and Lands has provided authorisation to clear within a portion of Lot 301 (Reserve 27516), portion of Lot 301 on Deposited Plan 45656, portion of Lot 300 on Deposited Plan 45633, a portion of Lot 500 on Deposited Plan 62285, Lot 300 on Plan 45653, and Lot 424 on Plan 218390, Roebuck.

A submission (2011) has been received in regards to this application. The submission raised concerns about the clearing being premature, as the facilities relate to the LNG Hub proposal which is currently the subject of a strategic assessment process by the state and federal governments. DEC notes planning consent for the workers accommodation camp, associated infrastructure and utilities connection has been approved and therefore is in accordance with planning instruments. The submission also raised concerns about flora and biodiversity impacts, these concerns have been addressed in the clearing principles.

Methodology References:
DoW (2011)
Submission (2011)
GIS Databases:
- Cadastre
- Public Drinking Water Source Areas, PDWSA

4. References

DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed 26/05/2011

DEC (2011) Memo for Clearing Permit Application CPS 4354/1, Lot 301, 300, 500, 502 & 424 Broome. Site Inspection undertaken 9/07/2011. Department of Environment and Conservation, Western Australia. (DEC Ref: A403807)

DoW (2011) CPS 4354/1 - Woodside Energy Limited- Clearing Vegetation for temporary accomadation DEC ref: A403757

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

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

Shepherd, D.P. (2009) Adapted from: 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.

Submission (2011). Public submission received 7 June 2011. DEC Ref: A401841

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
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)