



1. Application details

1.1. Permit application details

Permit application No.: 202/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Origin Energy Developments Limited

1.3. Property details

Property: LOT 12453 ON PLAN 221090 (ARROWSMITH 6525)
Local Government Area: Shire Of Irwin
Colloquial name: Petroleum Licence L11, Location 3/90-1, Block 6238

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2		Mechanical Removal	Petroleum

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
Beard vegetation association 378: Shrublands; scrub-heath with scattered Banksia spp., E. todtiana & Xylomelum angustifolium on deep sandy flats in the Geraldton Sandplain Region (Hopkins et al. 2001, Shepherd et al. 2001).	The application is for the widening of approximately 5 km of existing vehicle track for the purpose of installing a gas flow line from the Tarantula-1 gas well to the Beharra Springs gas processing plant. The area under assessment is located on Lot 12453 on Deposited Plan 221090 which is within DOIR Production Licence 11 . Vegetation is predominantly low-lying scrub-heath with occasional Melaleuca and Eucalypt stands over pale deep and yellow deep sands. A site visit was conducted on 29 September 2004 by Steve Checker and Anne Finlay of the Department of Environment. The entire length of the track (proposed to be widened) was driven with frequent walking of areas of interest. The site inspection showed that the area under proposal is in a relatively pristine condition, with the initial 1-2 m at the edges of the tracks showing any signs of disturbance (mainly slight physical disturbance through vehicle activity). The area was seen to contain a wide range of native flora species.	Pristine: No obvious signs of disturbance (Keighery 1994)	Observed during site visit: the vegetation under application was highly biodiverse and in pristine condition. The vegetation was typical of the Geraldton Sandplains with the dominant families being Proteaceae and Myrtaceae. A number of digital photographs were taken (TRIM Ref: GD206).

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 at variance to this Principle**

The area under application falls within the Geraldton Sandplains Bioregion; a region recognised as a hotspot of biodiversity. Recent surveying of the vegetation proposed to be cleared (Woodman Environmental Consulting, 2004) revealed 85 native plant taxa in an area of 7.8km by 2km. The vegetation under application is significant for species richness and density, therefore the application is at variance to this Principle.

Methodology GIS Databases: Interim Biogeographic Regionalisation of Australia-EA 18/10/00.
Woodman Environmental Consulting, 2004.

(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 at variance to this Principle**

Phasmodes jeeba (a Priority 2 cricket) was recorded in 1984, however CALM advised that the proposed flowline will have a minimal impact on significant habitat for Declared Rare Fauna in the area.

Methodology CALM's Threatened and Priority Fauna Database [The comprehensiveness of the database is dependent on the amount of survey carried out in the area and does not necessarily represent a comprehensive listing (CALM, 2005)].

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

Comments **Proposal is at variance to this Principle**

Recent flora surveying (Woodman Environmental Consultants, 2004) revealed 8 Priority species occur within the potential impact area of the proposed flowline. These were Banksia elegans (P4), Beyeria gardneri (P1), Hakea polyanthema (P3), Hypocalymma gardneri (P2), Isopogon tridens (P3), Levenhookia octomaculata (P3), Persoonia sulcata (P4) and Schoenus sp. Eneabba (P1). The proposal is therefore at variance to this Principle.

Methodology GIS Databases: Declared Rare and Priority Flora list - CALM 13/08/03.
CALM's Threatened and Priority Flora Database [The comprehensiveness of the database is dependent on the amount of survey carried out in the area and does not necessarily represent a comprehensive listing (CALM, 2005)].
Woodman Environmental Consulting, 2004.

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significant ecological community.

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

The Threatened Ecological Community (TEC) data base did not include the vegetation affected by this application.

Methodology GIS Databases: Threatened Ecological Communities - CALM 15/07/03

(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 may be at variance to this Principle**

The vegetation under application is part of the Beard vegetation association 378 and lies in the Shire of Irwin in the Intensive Land Use Zone (ILZ) of the Geraldton Sandplain Bioregion. The Conservation Status of the Bioregion in the ILZ is Vulnerable, the Conservation Status of the Shire of Irwin is Depleted and the Conservation Status of the vegetation association is Least Concern. The proposal therefore may be at variance to this Principle.

	Pre - European (ha)	Current Extent (ha)	Remaining (%)	Conservation* status	% In reserves/CALM managed land
IBRA Bioregion -Geraldton Sandplain	2 474 401	663 290	26.8	Vulnerable	
Shire- Irwin	705 670	591 748	83.9	Depleted	
Beard Unit 378	109 796	68 049	62.0	Least Concern	21.1

(Shepherd et al. 2001)
(Department of Natural Resources and Environment 2002)

Methodology GIS databases: Interim Biogeographic Regionalisation of Australia-EA 18/10/00, Local Government Authorities-DLI 08/07/04, Pre-European Vegetation-DA 01/01, EPA Position Paper No 2 Agriculture Region-DEP 12/00. Shepherd et al, . 2001

(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

The area under assessment is located in the Arrowsmith catchment and the vegetation is not associated with a watercourse or wetland.

Methodology Site visit (DoE) Officers, 2004
GIS databases:
- Hydrographic catchments - Catchments - DoE 03/04/2003
- Hydrography, linear DoE 01/02/2004

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

Comments Proposal is not at variance to this Principle

DAWA advised that the proposed clearing of 2 hectares for a flowline was not likely to cause appreciable on or off site land degradation.

Methodology DAWA, 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 at variance to this Principle

The area under proposal is approximately 3.8 km east of the Yardanogo Nature Reserve. The proposal is not expected to impact on the Reserve.

Methodology GIS Database:
CALM Managed Lands and Waters CALM 01/06/2004

(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 at variance to this Principle

The proposed area is not in or near to a PWDSA area and the proposal is not expected to impact on surface or ground water quality.

Methodology Site visit (DoE) Officer, 2005.
GIS database:
- PWDSA, Gazetted - WRC 01/11/02.

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

Comments Proposal is not at variance to this Principle

Due to the relatively small size of the area under application, the proposal is not expected to exacerbate flooding in the area.

Methodology Site visit (DoE) Officer, 2005.

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

Comments

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Petroleum	Mechanical Removal	2	Grant	The assessable criteria have been addressed and the proposal was found to be at variance to Principles a) and c) and possibly at variance to Principle e). The assessing officer recommends that the permit should be granted with the following conditions to reduce the loss of biodiversity and minimise the impact on the Priority

flora species, *Beyeria gardneri* and *Schoenus* sp. Eneabba.

Advice : Please forward the Flowline Construction Environmental Management Plan to the Jurien CALM office.

The permit holder shall reduce the clearing width from 8 metres to 5 metres where *Beyeria gardneri* or *Schoenus* sp. Eneabba are found within the road easement.

The permit holder shall conduct raised blade clearing within the road easement with the blade raised 150mm from the ground.

5. References

- CALM (2004) Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref GD329.
- DAWA (2004) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref CEO1679/04.
- 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.
- EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority.
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- Keighery, BJ (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Woodman Environmental Consulting Pty Ltd (2004) Origin Energy Resources Proposed Tarantula flowline priority flora assessment. Perth, Western Australia.
- Woodman Environmental Consulting Pty Ltd (2004) Origin Energy Resources Proposed Tarantula flowline vegetation assessment. Perth, Western Australia.