



1. Application details

1.1. Permit application details

Permit application No.: 2302/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Dext Pty Ltd

1.3. Property details

Property: LOT 854 ON PLAN 134689 (House No. 4030 JALBARRAGUP WALSALL 6280)
Local Government Area: Shire Of Busselton
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
7.01		Mechanical Removal	Dam construction or maintenance

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
<p>Beard:</p> <ul style="list-style-type: none"> - Unit 3 (Chapman): Medium forest; jarrah - marri; (Hopkins et al., 2001; Shepherd, 2006). <p>Mattiske:</p> <ul style="list-style-type: none"> - Treeton (T): Woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla with some Allocasuarina fraseriana on mild slopes in the perhumid zone (Havel & Mattiske Consulting, 1998). 	<p>The proposal involves clearing approximately 7.01 hectares for dam construction and planting flowers. The area under application for the dam is considered to be in good condition; while the areas south of this on the hill are severely degraded due to stock impacts, previous logging activities and excessive nutrient build up (DEC, Site Visit, 2008).</p>	<p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)</p>	<p>Description of the clearing application area is based on a site inspection conducted by DEC officers on 13 February 2008.</p>
		<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)</p>	<p>Dam construction area.</p>

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 for the clearing of approximately 7.01 hectares; approximately 1.5 hectares comprises riparian vegetation within a watercourse in good condition, and the remainder is parkland cleared in completely degraded condition (Keighery, 1994).

The local area is approximately 70% vegetated and the area under application lies on the outer limits of the Whicher Range, adjacent to the Millbrook State Forest.

The vegetation within the watercourse under application is located at the top of the Chapman Hill catchment, and is one of many tributaries which feed into the Vasse River.

The vegetation under application has been impacted by stock over many years; given this and the percentage of surrounding remnant vegetation (70% in 10 kilometres radius), the proposed clearing is not likely to hold a high level of biological diversity, and is therefore not likely to be at variance to this Principle.

Methodology Keighery (1994);

GIS Databases:

- CALM Managed Lands and Waters - CALM 1/6/04;
- Environmentally Sensitive Areas - DoE 30/5/05;
- Busselton 50cm ORTHOMOSAIC - DLI04

(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**

There are several records of threatened and priority listed fauna within close proximity to the area under application (10 kilometre radius). The local area is approximately 70% vegetated, with the majority being DEC managed State Forest.

Therefore, given the condition of the vegetation under application and the percentage of surrounding remnant vegetation, the area under application is not considered significant habitat for fauna indigenous to Western Australia and is therefore not at variance to this Principle.

Methodology Keighery (1994);

GIS Databases:

- Threatened Fauna, SAC Bio Dataset - 22/8/07
- CALM Managed Lands and Waters - CALM 1/6/04;
- Busselton 50cm ORTHOMOSAIC - DLI04

(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**

Several populations of *Dryandra mimica* (DRF), one population of *Dryandra nivea* subsp. *uliginosa* (DRF) and numerous Priority listed taxa have been recorded within 10 km of the area under application.

Dryandra mimica is a prostrate, lignotuberous shrub, that flowers in December to February and occurs on white or grey sand over laterite; *Dryandra nivea* subsp. *uliginosa* is a dense, erect, non-lignotuberous shrub that flowers in August to September and occurs on sandy clay and gravel (DEC, Flora Base, 2008).

The soils of the area under application are described as block laterite and lateritic (ironstone) gravels on gently undulating to low hilly relief, and may include hard acidic yellow mottled soils (Northcote et al. 1960-68).

Given the completely degraded condition, the percentage of surrounding remnant vegetation and soil types of the area, the proposed clearing is unlikely to be necessary for the continued existence of rare flora, and is therefore not likely to be at variance to this Principle.

Methodology DEC, Flora Base (2008);
Northcote et al. (1960-68);

GIS Databases:

- DEFL, SAC Bio Dataset - 22/8/07;
- Soils, Statewide;
- Busselton 50cm ORTHOMOSAIC - DLI04

(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 are several records of the community type SCP10b "Shrublands on southern Swan Coastal Plain Ironstones (Busselton area)" and SCP 1b "Eucalyptus calophylla woodlands on heavy soils of the southern Swan Coastal Plain" within 10 kilometres of the area under application; however the completely degraded condition has significantly modified the value of the vegetation. The proposed clearing is therefore not likely to be necessary for the maintenance of a significant ecological community, and is therefore not likely to be at variance to this Principle.

Methodology GIS Databases:
- TEC Database, SAC Bio Dataset - 22/8/07;

(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				area (ha)
	Pre-European	Current extent (ha)	Remaining %	% in reserves/DEC-managed land	
IBRA Region:					
- Southern Jarrah Forest		2,607,857	1,294,281	49.6*	33.2
Local Government Authority:					
- Shire of Busselton		145,239	61,780	42.5*	17.6
Vegetation type:					
Beard:					
- Unit 3 (Chapman)		2,661,403	1,846,588	69.4*	26.4
Mattiske:					
- Treeton (T)		27,818	11,805	42.0**	11.3

* (Shepherd, 2006)

** (Havel & Mattiske Consulting, 2002)

The area under application is located in the Shire of Busselton in the Southern Jarrah Forest Bioregion, which retain approximately 42.5% and 49.6% (Shepherd, 2006), respectively of the pre-European extent.

The area under application is mapped as the Treeton complex (T), which retains approximately 42% of the pre-European extent (Havel & Mattiske Consulting, 2002). Much of the remaining extent for this complex is protected within large areas of surrounding State Forest.

Given the scale (7.01 ha) and condition of the vegetation under application, the proposed clearing is not likely to be considered significant remnant vegetation within the Greater Busselton area, and is therefore not likely to be at variance to this Principle.

Methodology Shepherd (2006);
Havel & Mattiske Consulting (2002);

GIS databases:

- Interim Biogeographic Regionalisation of Australia - EM 18/10/00;
- Mattiske Vegetation - CALM 24/3/98;
- Pre-European Vegetation - DA 01/01;
- Local Government Authorities - DLI 8/7/04

(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 at variance to this Principle

The proposal involves clearing approximately 1.5 hectares of riparian vegetation within the Walsall Brook; therefore the area under application is within a watercourse and is at variance to this Principle.

The vegetation under application within this area is not fenced, and despite the impacts of stock, is considered to be in good condition. The remaining vegetation under this application is not associated with a watercourse or wetland.

If approved, revegetation conditions are recommended to mitigate the loss of riparian vegetation.

Methodology GIS Databases:
- Hydrography, Linear - DoE 1/2/04;
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Busselton 50cm ORTHOMOSAIC - DLI04

(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 area under application is described as gently undulating to low hilly relief with extensive block laterite and lateritic (ironstone) gravels; chief soils are hard acidic yellow mottled soils containing variable amounts of ironstone gravels (Northcote et al. 1960-68).

The groundwater salinity is ≤ 500 mg/L and the hydrogeology consists of sedimentary rocks of sand and sandstone with extensive and deep aquifers.

Given the scale (7.01 ha), level of groundwater salinity and hydrogeology, the proposed clearing is not likely to cause appreciable land degradation and therefore is not likely to be at variance to this Principle.

Methodology Northcote et al. (1960-68);

GIS Databases:

- Salinity Risk LM25m - DOLA 00;
- Hydrogeology, Statewide - DoW;
- Groundwater Salinity, Statewide - DoW

(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 area under application lies adjacent to the Millbrook State Forest. The watercourse on the property under application is not physically connected to this area; therefore given the completely degraded condition of the majority of the vegetation under application and the percentage of surrounding vegetation (70% in 10 km radius), the proposed clearing is not likely to impact on the environmental values of any nearby areas managed for conservation.

Methodology GIS Databases:

- Register of National Estate - EA 28/01/03;
- CALM Managed Lands and Waters - CALM 1/07/05

(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 area under application is described as gently undulating to low hilly relief with extensive block laterite and lateritic (ironstone) gravels; chief soils are hard acidic yellow mottled soils containing variable amounts of ironstone gravels (Northcote et al. 1960-68).

The groundwater salinity is ≤ 500 mg/L and the hydrogeology consists of sedimentary rocks of sand and sandstone with extensive and deep aquifers.

The slope of the land under application is 115 to 135 metres AHD (Australian Height Datum) over 500 metres, with a small tributary of the Walsall Brook located within the area under application.

Despite the soils containing gravel and the area under application comprising a watercourse; the application consists of vegetation in completely degraded condition with a low gradient slope; therefore the proposed clearing is not likely to cause deterioration in the quality of surface or underground water and is therefore not likely to be at variance to this Principle.

Methodology Northcote et al. (1960-68);

GIS Databases:

- Hydrographic Catchments, Catchments - DoW;
- Topographic Contours, Statewide - DOLA 12/9/02;
- Groundwater Salinity, Statewide - DoW;
- Hydrogeology, Statewide - DoW

(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

Given the completely degraded condition of the area under application and the percentage of surrounding vegetation (70% in 10 km radius), the proposed clearing is unlikely to cause or exacerbate the incidence or intensity of flooding and is therefore not likely to be at variance to this clearing principle.

Methodology GIS Databases:
 - CALM Managed Lands and Waters - CALM 1/07/05;
 - Topographic Contours, Statewide - DOLA 12/9/02

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

Comments

DoW (2008) advises the proposal is located on a stream that begins on the property and as such, falls outside of the current RIWI provisions, i.e. does not require a) a surface water licence; or b) a permit to construct a new dam.

The applicant has obtained planning consent for the proposed dam development. The Shire of Busselton (2008) has no objection to the clearing for this purpose; however does not support clearing south of the creek for buildings, as it appears to exceed what would be required for that purpose. The applicant advises this area is to be cleared predominantly for the planting of flowers; however some buildings are planned to be constructed at a later date. The Shire of Busselton advises that development approval / consent is not required for this purpose.

There is one native title claim over the area under application (South West Boojarah); however as the property is privately owned the granting of a clearing permit is a secondary approval and does not constitute a future act under the Native Title Act 1993.

No public submissions have been received to date for this proposal.

Methodology DoW (2008);
 Shire of Busselton (2008);

 GIS Databases:
 - Native Title Claims - DLI 7/11/05

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Dam construction or Removal maintenance	Mechanical	7.01	The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing: - is at variance to Principle (f); and - is not or is not likely to be at variance to the remaining clearing Principles.

5. References

Department of Environment and Conservation (DEC), Florabase (2008) <http://florabase.dec.wa.gov.au/> (Retrieved 18 February 2008).

Department of Water (DoW) (2008). TRIM Ref: DOC46351.

Havel, J. and Mattiske Consulting Pty Ltd, (2002). Review of management options for poorly represented vegetation complexes. Conservation Commission.

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

Mattiske, E.M. and Havel, J.J. (1998). Vegetation mapping in the South West of Western Australia. Department of Conservation and Land Management, Perth.

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.

Sac Bio Datasets (22/8/07). Department of Environment and Conservation, Sac Bio Datasets, Kensington, Western Australia.

Shepherd, D.P. (2006). 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

Shire of Busselton (2008). TRIM Ref: DOC46150.

6. Glossary

Term	Meaning
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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)