



1. Application details

1.1. Permit application details

Permit application No.: 956/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Delonix Holdings Pty Ltd

1.3. Property details

Property: LOT 4485 ON PLAN 232431 (SANDY GULLY 6535)

Local Government Area: Shire Of Northampton

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
582.17		Mechanical Removal	Grazing & Pasture

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 359: Shrublands; acacia and banksia scrub	The area under application is a large block of 582ha. It is best described as shrubland with vegetation mostly under 1.5m in height with larger acacia and banksia specimens scattered throughout the landscape. According to the desktop study, the Beard vegetation association 440 is limited to a small strip along the coast at the south west corner of the block, however this area could not be easily accessed during the site visit. At the coastal edge of the property, there is a considerable descent to the water line. Apart from some patches of exposed rocky outcrops this area is well vegetated with shrubs forming a thick low heath, which extends almost to the waterline. In all areas the vegetation is in pristine condition with no evidence of disturbances or weed invasion.	Pristine: No obvious signs of disturbance (Keighery 1994)	The condition of the vegetation was assessed during the site visit conducted on the 11th of January 2006. Site visit DoE Officer, 2006.
Beard vegetation association 440: Acacia ligulata open scrub			

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

A list has been compiled by a representative of Greening Australia, indicating the flora likely to found within the area (GD675). This list indicates that up to 170 species could be found to occur at the site. The flora survey conducted by ATA Environmental over 7 hectares within the area (IN24948) lists 61 species

that have been identified
and includes Priority 4
flora.

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 may be at variance to this Principle**

CALM reported that there was limited information available to properly assess whether the area under application contains higher biological diversity than the surrounding local environment. However the area does fall within the Geraldton Sandplains IBRA region which is considered a hotspot of botanical diversity of international significance and consists of mainly proteaceous scrub-heaths, rich in endemics (CALM 2006). Therefore the proposal may be at variance to this Principle.

Methodology CALM, 2006.
GIS Databases: Interim Biogeographic Regionalisation of Australia-EA 18/10/00.
Site visit DoE Officer, 2006.

(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 may be at variance to this Principle**

CALM reported that survey data from the MidWest region is scarce, however there are two records for threatened fauna that occur in the local area; that is within a 10 kilometre radius of the area under application. The first is the Peregrine Falcon, *Falco peregrinus*, which is Specially Protected under the Wildlife Conservation Act. This species prefers areas with rocky ledges, cliffs, watercourses, open woodland or margins with cleared land. The other record relates to the Bush Stonecurlew, *Burhinus grallarius*, which is a Priority 4, Priority Listed Fauna. This species is a well camouflaged, ground nesting bird which prefers to 'freeze' rather than fly when disturbed. It inhabits lightly timbered open woodlands.

CALM also advised that the area under application is likely to contain suitable feeding habitat for Carnaby's Cockatoo, *Calyptorhynchus latirostris*, which is listed as Endangered and is protected under both the Wildlife Conservation Act and the Environment Protection and Biodiversity Conservation Act. This species is mainly found in remnant eucalypt woodland as well as shrubland and heath country dominated by *Hakea*, *Dryandra* and *Banksia* species, and its range includes the area under application. Its breeding success is dependent upon heathland feeding areas within 12km of woodland nesting habitat.

Aside from the fauna listed above, due to the size and pristine nature of the area under application, it would be an important habitat for a range of indigenous fauna. The area under application also adjoins other uncleared areas, providing a link to remaining coastal vegetation and extending the potential range for fauna. Therefore this proposal may be at variance to this Principle.

Methodology CALM, 2006.
Site visit, DoE Officer 2006.
Keighery et al., 1994

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

Comments **Proposal may be at variance to this Principle**

CALM have reported that there are 18 records of 6 species of Declared Rare Flora and 24 records of 11 Priority flora species occurring within the local area; that is within 10 kilometres from the area under application.

One of the Priority species, *Diuris recurva*, listed as Priority 4 is known to occur on site. It was located after a flora survey was conducted for a 7 hectare section of the area under application, by ATA Environmental in 2005.

Of the DRF species, one has been recorded as occurring in the same Beard Vegetation Association as the area under application; 359. *Caladenia bryceana* subsp *cracens* (Northern dwarf spider orchid) is described as a tuberous perennial herb, 0.03 to 0.08m high. The flowers are green, yellow and appear in August to September. It occurs on sand over limestone. In the southern part of its range; around the area under application, it is scattered through low heath in shallow soil on coastal limestone.

CALM recommended additional survey work be completed given that a Priority species is known to be present, and due to the possibility that *Caladenia bryceana* subsp *cracens* may also occur on site. As the recommendation at this time is for the application to be refused, additional surveys have not been sought. However, should the application be amended and require reassessment, further surveys would be sought as the proposal may be at variance to this Principle.

Methodology CALM, 2006.

(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

The area under application is not included in the Threatened Ecological Community database, and nor do CALM have any records or data to indicate the presence of TECs, therefore this proposal is not at variance to this Principle.

Methodology CALM, 2006.
GIS Databases: Threatened Ecological Communities - CALM 12/04/05

(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 at variance to this Principle

There is 26.8% pre-European vegetation remaining in the Geraldton Sandplains Bioregion, 19.6% in the Shire of Northampton, 21.1% in Beard vegetation association 359 and 59.6% in Beard vegetation association 440.

Most of the area under application; approximately 95%, consists of the vegetation association 359 which based upon its current extent is classified as vulnerable. More recent data from CALM indicates that the extent for 359 has been reduced to 18.8%, with 0% held in conservation reserves. The Shire of Northampton is an extensively cleared region as indicated by 19.6% of the original vegetation remaining.

The area is considered to represent a significant remnant due to its occurrence within an extensively cleared area, large size, low edge to area ratio, pristine condition and as it directly adjoins other uncleared areas. The proposal is at variance to this Principle.

Methodology GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Pre-European Vegetation - DA 01/01
- Local Government Authorities - DLI 08/07/04.
Shepherd et al, 2001.
Department of Natural Resources and Environment, 2002.
Keighery et al., 1994.
Hopkins et al., 2001
CALM, 2006.

(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 may be at variance to this Principle

The linear hydrography database indicated the presence of some minor non-perennial watercourses along the coastal area of the application. Due to the steep descent to the water line, these are perhaps better described as eroded gullies acting as drains during heavy rainfall events. Indeed DAWA have advised that the coastal dune portion of the property would drain directly to the ocean.

There are no other watercourses or wetlands occurring on the property, however due to the presence of these coastal features, the proposal may be at variance to this Principle.

Methodology GIS Databases: Hydrography, linear - DoE 01/02/04.
Site visit DoE Officer, 2006.
DAWA, 2006.

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

Comments Proposal is seriously at variance to this Principle

DAWA (2006) reported that there are 3 soil systems within the area to be cleared: the Quindalup System, Tamala North Subsystem 2 (TA2) and Tamala North Subsystem 3 (TA3). The Quindalup system occurs immediately along the coast in a narrow strip, and is entirely unsuitable for agriculture. The Tamala North Subsystem 2 runs parallel to the Quindalup system along the coast. This system; TA2, has a low to very low capability for agriculture, and fifty percent of the system has a high risk of wind erosion. Together these two systems cover approximately 30 to 35% of the total area under application.

The remaining soil system of the block is Tamala North Subsystem 3. The Land Capability assessment of this soil system indicates moderate physical limitations significantly affecting productive land use. This system; TA3,

is also at high risk of wind erosion which is of concern given the coastal location of the property. Current farmland immediately adjacent to the area under application exhibits damage that has been caused by wind and water erosion.

DAWA have also advised that there was no hydrogeological information specific to the area under application available to make an accurate determination on the effect that the proposal may have on surface or groundwater. However, due to the highly transmissive sandy soils of the area, it is likely that the clearing would increase groundwater recharge. Currently there is no evidence of salt affected land on the property and depth to groundwater is unknown. Most of the area under application drains in a north west direction towards a tributary of the Hutt River. The land surrounding this tributary is saline. It is possible that increased recharge resulting from the clearing could contribute to a rise in groundwater in this area, increasing the effects of salinity off site. Therefore the proposal may be at variance to this Principle.

DAWA have advised that the proposal to clear 582ha is seriously at variance with Principle G for wind and water erosion.

Methodology DAWA, 2006.
Site visit DoE Officer, 2006.

(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 may be at variance to this Principle

There are a number of small conservation areas; less than 150 hectares, that are approximately 30km from the site. Due to the distances involved, it is unlikely that the area under application would make a significant contribution to these reserves.

However, covering approximately 95% of the site, the Beard Vegetation Association 359 is the main vegetation type for the area under application. Current data indicates that only 18.8% of this association remains, and that 0% is represented in reserves (CALM 2006). The area under application is a large remnant in pristine condition that adjoins other large areas of this vegetation association which would increase its conservation value. As the habitat provided by this remnant is not well represented on conservation land the proposal may be at variance to this Principle.

Methodology CALM 2006.
Keighery et al., 1994.
GIS Databases:
- CALM Regional Parks - CALM 12/04/02
- CALM Managed Lands & Waters - CALM 01/07/05
- Proposed National Parks FMP-CALM 19/03/03
- Register of National Estate - EA 28/01/03
- Pre-European Vegetation - DA 01/01

(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 may be at variance to this Principle

The area under application is in the Hutt River catchment and does not include any Public Drinking Water Source Areas (PDWSA). The Horrocks Beach Water Reserve is within 4km of the area under application, but it is not a prioritised water reserve.

DAWA advised that there was no hydrogeological information specific to the area under application available to make an accurate determination on the effect that the proposal may have on surface or groundwater. However, due to the highly transmissive sandy soils of the area, it is likely that the clearing would increase groundwater recharge. Currently there is no evidence of salt affected land on the property and depth to groundwater is unknown. Most of the area under application drains in a north west direction towards a tributary of the Hutt River. The land surrounding this tributary is saline. It is possible that increased recharge resulting from the clearing could contribute to a rise in groundwater in this area, increasing the effects of salinity off site. Therefore the proposal may be at variance to this Principle.

Methodology DAWA, 2006.
GIS Databases:
- Public Drinking Water Sources (PDWSAs) - DOE 09/08/05
- Hydrographic Catchments - Catchments - DOE 23/03/05.

(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 at variance to this Principle

The area under application occurs within the Hutt River catchment and has an average annual rainfall of

500mm. As the soils are highly transmissive (DAWA 2006) it is unlikely that the proposal would lead to an increase in peak flood height or duration. Therefore the application is not at variance to this Principle.

Methodology DAWA, 2006.
GIS Databases:
- Rainfall, Mean Annual - BOM 30/09/01
- Hydrographic Catchments - Catchments - DOE 23/03/05.

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

Comments

The proposal falls within the area defined in the EPA Position Statement Number 2 which has identified that it is unreasonable to allow further clearing to be undertaken in the agricultural zone for agricultural purposes.

The EPA received the Geraldton Regional Plan, which included the area under application. The Plan was deemed not to be a proposal under Part IV and no other environmental factors or appeals were recorded. The level of assessment was set on the 23 January 1998.

The Shire of Northampton responded to the agency invite, by stating that the Shire had no objection to the proposed clearing.

A regional DoE team consultation was undertaken and there is no other RIWI Act Licence, Works Approval or EP Act Licence that will affect the area under application.

A submission was received that opposed approval of the clearing application. It outlined concerns that the application may be at variance with Principles a, b, c, d, e, g, h and i. From the assessment Principles e and g have been found to be at variance, and Principles a, b, c, h and I may be at variance. The submission was also concerned that the proposal may have affected Threatened Ecological Communities; Principle d. However there is no current information that indicates any TECs occur in the area, a conclusion that is supported by CALM advice.

Methodology

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Grazing & Pasture	Mechanical Removal	582.17	Refuse	<p>The proposal is seriously at variance to Principle g, at variance to Principle e, and may be at variance to Principles a, b, c, f, h and i.</p> <ul style="list-style-type: none"> - DAWA advised that the land capability of the best soils within the area under application demonstrated moderate physical limitations that would significantly affect productive land use. There is also a high risk of wind and water erosion leading to land degradation. - The purpose of the clearing is for agriculture and the area is subject to the EPA Position Statement Number 2. - The remaining vegetation extent of the Geraldton Sandplains, Shire of Northampton and Beard Vegetation Association 359 are all classed as vulnerable. - The removal of 582ha of pristine vegetation may impact upon the biodiversity of the local region. - The area under application contains Priority 4 flora and there is a chance that DRF may also be found on the site, based upon its occurrence locally on similar habitat. - The area may support Specially Protected and Priority fauna species that have been recorded in the local area. - Beard Vegetation Association 359 has 18.8% of its original extent remaining; none of which is held in conservation areas. - The increase in groundwater recharge that would result from the clearing may lead to an increase in salinity off site. - The area includes minor non-perennial watercourses along the coastal section of the property.

5. References

- ATA Environmental (2005) Lot 4485 Whitecliffs Road Vegetation and Flora Survey, Shire of Northampton. Report Number : 2005/203
- CALM Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref CRN219388.
- DAWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref IN25526.
- 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.

- 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.
- 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.

6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
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 DoE)