



1. Application details

1.1. Permit application details

Permit application No.: 552/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Madora Partnership

1.3. Property details

Property: LOT 9013 ON PLAN 36705
Local Government Area: City Of Mandurah
Colloquial name: Madorah Beach Rd - Lot 9021 on Plan 43250, Volume 2584 Folio 784.

1.4. Application

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

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: 997 - Shrublands; melaleuca heath. (Hopkins et al 2001, Shepherd et al. 2001)	The vegetation under application is classified by ATA Environmental (2005) as being comprised of two main communities, Acacia rostellifera Shrubland (ArS), and Acacia rostellifera Tall Open Shrubland (ArTOS).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The description of the vegetation to be cleared was obtained from the ATA Environmental (2005) Flora survey.
Heddle vegetation complexes:			
Cottesloe Complex - Central and South: Mosaic of woodland of E. gomphocephala and open forest of E. gomphocephala - E. marginata - E. calophylla; closed heath on the Limestone outcrops.	ArS: This community is dominated by Acacia rostellifera to 2.5m in height with occasional Spyridium globulosum over a herb layer dominated by Euphorbia terraciona, Trachyandra divaricata, Phyllanthus calycinus, and Acanthocarpus preissii. This vegetation type was found to range from a Degraded to Good condition.		
Quindalup Complex: Coastal dune complex consisting mainly of two alliances - the strand and fore-dune alliance and the mobile and stable dune alliance. Local variations include the low closed forest of M. lanceolata - Callitris preissii and the closed scrub of Acacia rostellifera. (Heddle et al, 1980)	ArTOS: This community to dominated by Acacia rostellifera Tall Open Woodland over Santalum acuminatum Low Open Shrubland. This vegetation type is considered to be in Degraded condition.		

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**
While the area under application contains midstorey vegetation in relatively good condition, the understorey has been impacted through historical use of the site for grazing cattle. The flora survey conducted by ATA

Environmental (2005) did not identify any Declared Rare or Priority Flora, or any Threatened Ecological Communities within Lot 9021.

With numerous Bush Forever and CALM Managed Reserves within relatively close proximity to the area under application, it is considered unlikely that the vegetation under application represents an area of higher biological diversity.

Methodology ATA Environmental (2005)

(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

A site inspection on the 26/7/2005, found that the area under application has been degraded through the use of the property for cattle grazing. The vegetation primarily consists of Acacia rostellifera, with a completely altered understorey consisting mainly of introduced weeds and grasses. Large trees are absent from the area under application, and thus it is not considered likely that the area is representative of significant habitat for fauna.

Methodology Site inspection (26/7/2005)

(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

A spring flora survey conducted by ATA Environmental (2005) on Lot 9021 did not record any Declare Rare Flora, Priority Flora or Commonwealth Listed species.

Methodology ATA Environmental (2005)

(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

ATA Environmental (2005) identifies the vegetation types on Lot 9021 as Floristic Community Types 29a and 29b, neither of which are listed as Threatened Ecological Communities.

Methodology ATA Environmental (2005)

(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 at variance to this Principle

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-European settlement (Department of Natural Resources and Environment 2002; EPA 2000).

The vegetation at the site is a component of Beard Vegetation association 997 (Hopkins et al. 2001) and Heddle Vegetation Complexes Cottesloe Complex Central and South and Quindalup Complex, which while recognised as being depleted, are above the recommended 30% limit.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation status**	% in reserves/CALM-managed land
IBRA Bioregion	1,529,235	657,450	43%	Depleted	
City of Mandurah	18,611	8,933	48%	Depleted	
Beard vegetation association - 997	3,458	1,333	38.5%	Depleted	64.1%
Heddle vegetation complex - Cottesloe Complex - Central and South	44,995	18,474	41.1%	Depleted	8.8%
- Quindalup Complex	38,238	18,000	47.1%	Depleted	5.2%

* (Shepherd et al. 2001)

** (Department of Natural Resources and Environment 2002)

Methodology Department of Natural Resources and Environment (2002)
EPA (2000)
Hopkins et al (2001)
Heddle et al (1980)
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 likely to be at variance to this Principle

There are no known wetlands or watercourses within the boundaries of Lot 9021 Madora Beach Road.

Methodology GIS Database: Geomorphic Wetlands - Swan Coastal Plain - DOE 15/09/04
GIS Database: Hydrography, linear - DOE 01/02/04

(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

DAWA (2005) advise that the area under application is classified as Quindalup Qp1 phase. This soil unit is comprised of calcareous deep sands, yellow/brown shallow sands and yellow deep sands.

Through the clearing of vegetation, soils will be exposed to a high risk of wind erosion, and a moderate risk of water erosion. The proposed clearing will be therefore at variance with principle (g) if appropriate strategies such as wind breaks and maintenance of adequate ground cover are not implemented to minimise land degradation in the form of erosion.

The City of Mandurah has issued planning consent for earthworks to occur on the subject site (DoE TRIM ref: 2005I/1065). This development approval is subject to conditions including, but not limited to, the creation of a Dust Management Plan and the control of stormwater run-off.

It is therefore considered unlikely that the proposed clearing would be at variance to this principle.

Methodology DAWA (2005)

(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

Lot 9021 Madora Beach Road is located approximately 4km north-west of Goegrup Lake Nature Reserve and 3.5km from an unnamed nature reserve along the banks of the Serpentine River. The local area surrounding Lot 9021 also contains numerous Bush Forever sites, with the closest being Site 395, approximately 2.5km to the north-east.

Based on the current condition of the vegetation, and the distance to remaining stands of remnant vegetation, and the relatively high amount of native vegetation remaining in the area, it is not considered likely that the vegetation under application contributes significantly as an ecological linkage or buffer to nearby conservation areas.

Methodology Site inspection (26/7/2005)
GIS Database: Bush Forever - MFP 07/01
GIS Database: NLWRA, Current Extent of Native Vegetation - 30/01/01

(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 is not likely to be at variance to this Principle

Lot 9021 Madora Beach Road is primarily comprised of calcareous medium grained quartz sand (DAWA, 2005; Site Inspection, 26/7/2005), which would have a relatively high capacity for water infiltration. While the clearing of vegetation from the property will likely increase the infiltration and recharge of groundwater on site, it is not expected that this will negatively impact on ground or surface water quality.

Methodology DAWA (2005)
Site Inspection (26/7/2005)

(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

Flooding impacts are unlikely to occur as a result of this application. While the clearing of vegetation from the property will most likely increase the infiltration and recharge of groundwater on site, this is not expected to lead to any localised flooding as much of the area under application is comprised of well draining medium grained sands, and already lacks in deep-rooted perennial vegetation.

Methodology Site inspection (26/7/2005)

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

Comments

The area of vegetation under application is zoned Urban under the Peel Region Scheme, and the City of Mandurah has approved a Development Application for the land owner to store fill within the area under application.

EPA Bulletin 994 on the Peel Region Scheme advises:

'The EPA's System 6 recommendations for Conservation Reserves for Western Australia (Department of Conservation and Environment, 1983) states that land in the vicinity of Madora (M107) has 'extensive coastal dunes which are very valuable for their coastal vegetation and for recreational and aesthetic reasons'. The System 6 Report recommends that buffer zones of uncleared land should be left to preserve some segments of the scenery and vegetation near the main Mandurah Road and between areas of housing. These buffer zones would restrict housing to west of the dune ridge, and provide east-west links of vegetation between Mandurah Road and the coast.'

'The PRS proposes to zone land in Madora to Urban Deferred. Over 30 submissions were received on the PRS requesting that the east-west wedge between Madora and Singleton be included as ROS. This was on the basis that the open space wedges reflect System 6 recommendations and would protect wildlife habitats and remnant vegetation. The DEP advises that a large portion of the System 6 area (M107) has been degraded through grazing. The WAPC has advised that although the open space wedges are an important issue to the local community it is considered that they can be provided through the provision of local open space and appropriate residential subdivision design. The EPA supports this view and recommends that prior to the lifting of the Urban Deferment in Madora by the WAPC, measures be put in place to ensure that the landscape and vegetation values will be maintained as part of future subdivision and development.'

No Environmental Protection Licence or Works Approval will be required for activities within the area under application

Methodology Department of Conservation and Environment (1983)

4. Assessor's recommendations

Purpose	Method Applied	Decision	Comment / recommendation
Miscellaneous	Mechanical Removal	Grant	Assessable criteria have been addressed and no objections were raised. The assessing officer therefore recommends that the Permit should be granted.

5. References

- ATA Environmental (2005) Madora Bay East (Lot 9013) Environmental Assessment.
- DAWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref IN22276.
- Department of Conservation and Environment (1983) Conservation Reserves for Western Australia - The Darling System - System 6. Part II: Recommendations for Specific Locations.
- 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.
- Heddl, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALM Science 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)