



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number: CPS 6328/1
Permit Holders: Shire of Manjimup
Duration of Permit: 22 January 2015 – 22 January 2020

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 a residential development.
- 2. Land on which clearing is to be done**
Lot 13304 on Deposited Plan 188657 (Reserve 38881), Windy Harbour.
Lot 12439 on Deposited Plan 215937 (Reserve 38881), Windy Harbour.
- 3. Area of Clearing**
The Permit Holder must not clear more than 4.5 hectares of native vegetation within the areas hatched yellow on attached Plan 6328/1.
- 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 the activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing for those activities under the *Local Government Act 1995* or any other written law.
- 6. Period in which clearing is authorised**
The Permit Holder shall not clear native vegetation unless commencing the development within three months of the authorised clearing being undertaken.

PART II – MANAGEMENT CONDITIONS

- 7. Avoid, minimise etc clearing**
In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:
 - (a) avoid the clearing of native vegetation;
 - (b) minimise the amount of native vegetation to be cleared; and
 - (c) reduce the impact of clearing on any environmental value.

8. Dieback and 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* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *dieback* or *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.

DEFINITIONS

The following meanings are given to terms used in this Permit:

dieback means the effect of *Phytophthora* species on native vegetation;

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 any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

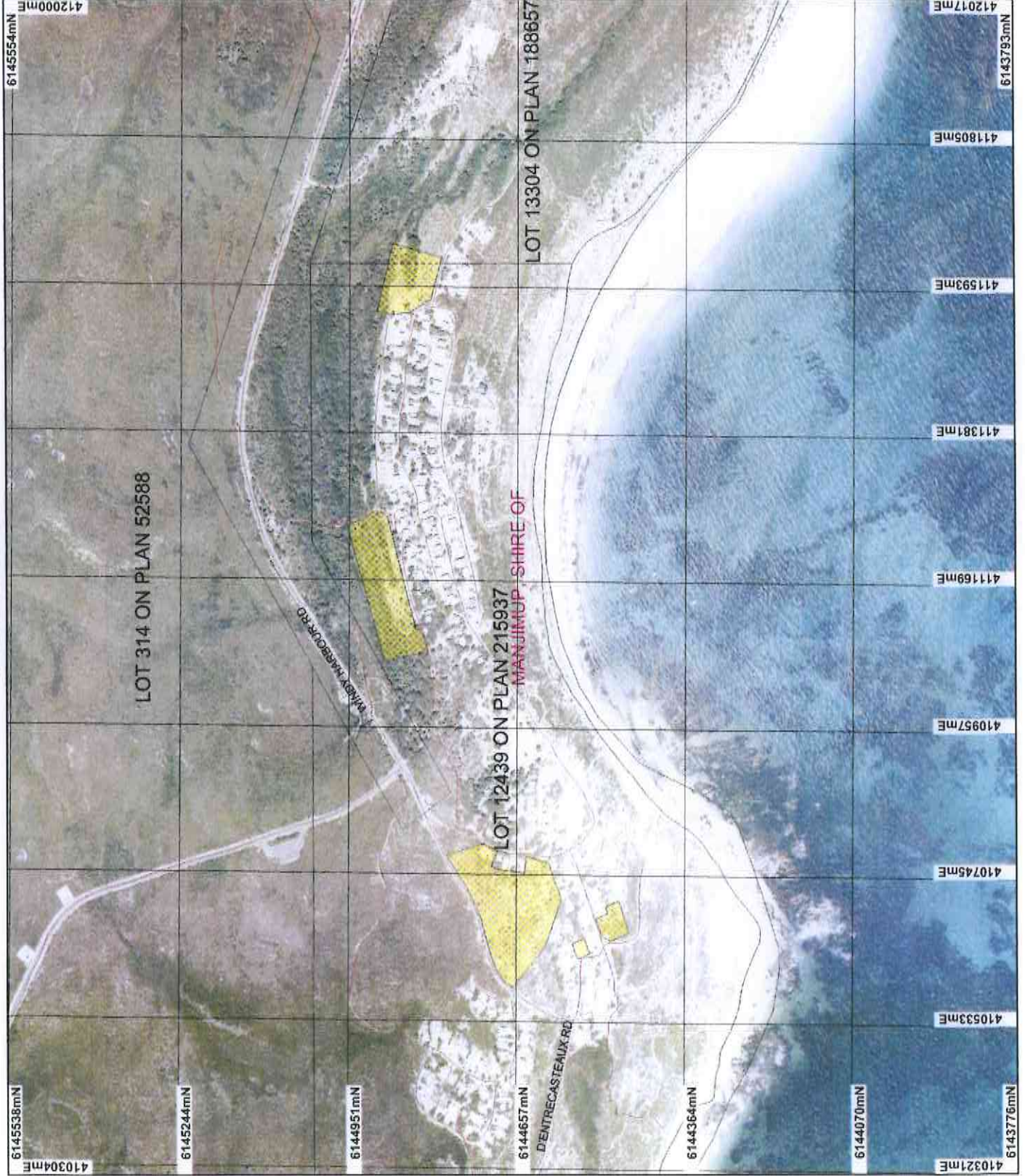


M Warnock
SENIOR MANAGER
CLEARING REGULATION

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

23 December 2014

Plan 6328/1



LEGEND

- Local Government Authorities
 - Road Centrelines
 - Cadastral Clearing Instruments
 - Areas Approved to Clear
- Northcliffe 50cm Orthomosaic - Landgate 2007



0 250 m

Scale 1:8334

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

amul Date 23/12/14

M Wislock

Officer with delegator 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.



Government of Western Australia
Department of Environment Regulation

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Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 6328/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Manjimup

1.3. Property details

Property: LOT 12439 ON DEPOSITED PLAN 215937 (WINDY HARBOUR 6262)
LOT 13304 ON DEPOSITED PLAN 188657 (WINDY HARBOUR 6262)
Local Government Area: Shire of Manjimup

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 23 December 2014

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
Mapped Beard Vegetation Association 1113 is described as shrublands comprising Jacksonia horrida heath.	The clearing of 4.5 hectares of native vegetation within Lot 12439 on Deposited Plan 215937 and Lot 13304 on Deposited Plan 188657, Windy Harbour, is for the purpose of constructing a residential development.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition and description of the vegetation was determined via a site inspection undertaken by Department of Environment Regulation Officers in November 2014.
Mapped Beard Vegetation Association 990 is described as low forest comprising peppermint (<i>Agonis flexuosa</i>) (Shepherd et al, 2001).		To	The western most application areas are comprised of a mixture of low coastal scrub at the highest portion of the ridge, with low woodland of <i>Agonis flexuosa</i> and scattered <i>Banksia</i> sp. along the southern portion nearing Windy Harbour Road.
Mapped Matiske Vegetation Meerup (Mp) Complex comprises mosaic of open low woodland of <i>Agonis flexuosa</i> with some <i>Eucalyptus cornuta</i> , tall shrubland of <i>Agonis flexuosa</i> with <i>Trymalium floribundum</i> in gullies and closed heath of <i>Olearia axillaris</i> - <i>Spyridium globulosum</i> - <i>Acacia littorea</i> on stabilised dunes in the hyperhumid zone (Matiske and Havel, 1998).		Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The centre and eastern application areas are comprised of <i>Agonis flexuosa</i> low woodland over closed heath with scattered <i>Acacia</i> sp., <i>Lomandra</i> sp., <i>Spyridium globulosum</i> , <i>Xanthorrhoea</i> sp., <i>Jacksonia</i> sp., and <i>Lepidosperma gladiatum</i> (coastal sword sedge). (DER, 2014).
Mapped Matiske Vegetation Meerup (Mr) Complex comprises low woodland of <i>Agonis flexuosa</i> - <i>Banksia attenuata</i> in gullies between beach ridges supporting coastal complex in the hyperhumid zone (Matiske and Havel, 1998).			

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 clearing of 4.5 hectares of native vegetation within Lot 12439 on Deposited Plan 215937 and Lot 13304 on Deposited Plan 188657, Windy Harbour, is for the purpose of constructing a residential development. The vegetation under application is in a very good to completely degraded (Keighery, 1994) condition (DER, 2014), with the completely degraded areas abutting and likely a result of the current Windy Harbour development.

The application areas are largely comprised of *Agonis flexuosa* low woodland with scattered *Banksia* and *Acacia* sp., over low heath and coastal scrub in the western portion. Other species include *Lomandra* sp., *Spyridium globulosum*, *Xanthorrhoea* sp., *Jacksonia* sp., and *Lepidosperma gladiatum* (coastal sword sedge) (DER, 2014).

The local area surrounding the application (10 kilometre radius) is extensively vegetated with approximately 80 per cent native vegetation remaining.

Several priority flora species have been recorded in the local area (10 kilometre radius). The majority of these species are priority 3 and 4 listed species, with the closest exception a nearby historical (1980) record of a priority 2 species mapped approximately 120 metres north, within the centre of a mapped dampland. This species is an erect shrub with a preference for swampy areas (Western Australian Herbarium, 1998-). Although a portion of the application is mapped within the edge of the dampland, no swampy areas were identified on site (DER, 2014). Therefore, if this mapped record persists, it is unlikely that the proposed clearing will impact on the conservation status of the species.

Priority 3 species are generally known from collections from several different localities not under imminent threat and priority 4 species are considered to have been adequately surveyed and not in need of special protection, but could be if circumstances change. The proposed clearing of 4.5 hectares is unlikely to impact on the conservation status of these species, particularly given that many of these are mapped north east within D'Entrecasteaux National Park.

The closest priority ecological community (PEC) is mapped approximately 8.5 kilometres north east of the application area and is known as 'Reedia Swamps – Warren Region'. Given the distance to this area, the proposed clearing is not likely to impact on this PEC.

Several fauna of conservation significance have been recorded within the local area, however given that vegetation of better quality exists immediately north within the extensive D'Entrecasteaux National Park, the proposed clearing is unlikely to impact on significant fauna habitat.

D'Entrecasteaux National Park borders the application to the north and east, and is within 100 metres at its closest point. The Park is comprised of a narrow strip of land 5 to 20 kilometres wide which stretches along the south coast for more than 130 kilometres between Augusta and Walpole. It is the result of the amalgamation of various State forests and timber reserves, Crown land, Shire of Manjimup reserves, conservation reserves, pastoral leases and freehold purchases between the 1970's and 1990's (Parks and Wildlife, 2014).

The proposed clearing will increase the risk of weeds and dieback spreading into adjacent vegetated areas, and particularly into D'Entrecasteaux National Park. Weed and dieback mitigation measures will help to minimise this risk.

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

Methodology

References:

- DER (2014)
- Keighery (1994)
- Parks and Wildlife (2014)
- Western Australian Herbarium (1998-)

GIS Databases:

- Parks and Wildlife Tenure
- SAC Bio Datasets (Accessed December 2014)

(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

Several fauna species of conservation significance have been recorded within the local area (10 kilometre radius), including *Calyptorhynchus baudinii* (Baudin's Cockatoo), *Calyptorhynchus banksii* subsp. *naso* (Forest Red-tailed Black-Cockatoo), *Setonix brachyurus* (Quokka) and *Isoodon obesulus* subsp. *fusciventer* (Quenda) (DEC, 2007-).

Baudin's Cockatoo and Forest Red-tailed Black-Cockatoo forage on the seeds, nuts and flowers of a large variety of plants including proteaceous species (*Banksia*, *Hakea*, *Grevillea*), as well as *Allocasuarina* and *Eucalyptus* species, *Corymbia calophylla* and a range of introduced species (Valentine and Stock, 2008).

The application areas contain scattered *Banksia* sp., particularly along the northern border of the western most application area (DER, 2014). Although these provide suitable foraging habitat, and may occasionally be utilised by black cockatoos, they are unlikely to provide significant foraging habitat given that higher quality vegetation is located within the extensive D'Entrecasteaux National Park (comprising approximately 116,700 hectares), bordering the application areas to the north and east.

There are no large trees on site suitable for use as breeding habitat for black cockatoos (DER, 2014).

The vegetation under application provides suitable habitat for *Isoodon obesulus* subsp. *fusciventer* (Quenda).

Quenda have a preference for wet or dry sclerophyll forest through to open woodland and scrubby vegetation on sandy soils. Dense undergrowth and low ground cover are particularly important in providing cover for Quenda (DEC, 2010). The vegetation under application is consistent with the preferred habitat type for Quenda however it is not likely to be significant, given the presence of D'Entrecasteaux National Park and extensive suitable habitat of greater quality within the local area (10 kilometre radius), which is approximately 80 per cent vegetated.

The primary habitat for mainland populations of Quokka is dense low riparian vegetation, this species also has relatively high water requirements, which necessitates close proximity to fresh water throughout the year (DotE, 2014). Dense low vegetation is present on site, and wetland areas occur within close proximity to the application areas (DER, 2014), however, the proposed clearing is unlikely to impact on significant habitat for this species given the presence of extensive undisturbed dense vegetation within mapped wetlands immediately north within D'Entrecasteaux National Park.

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

Methodology References:
-DEC (2007-)
-DER (2014)
-DEC (2010)
-DotE (2014)
-Valentine and Stock (2008)

(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**
The closest rare flora to the application area is mapped 3.3 kilometres north east. This record was taken within a swamp in an area mapped as a palusplain (seasonally inundated dampland) in D'Entrecasteaux National Park. The majority of records for this species occurred on grey peaty sand and loams. Although a small portion of the centre and eastern application areas is mapped as a dampland, there was no visible signs of a swamp within the application area (DER, 2014) and the chief soils on site have been mapped by Northcote (1960-1968) as leached sands, therefore it is not likely that the application area includes, or is necessary for the continued existence of this species.

The proposed clearing is not likely to be at variance to this Principle.

Methodology References:
-DER (2014)
-Northcote et al (1960-68)

GIS Databases:
-SAC Bio Datasets (Accessed December 2014)

(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**
There are no threatened ecological communities (TEC's) mapped within the local area (10 kilometre radius), therefore the proposed clearing is not likely to comprise the whole or part of, or be necessary for the maintenance of a TEC.

The proposed clearing is not at variance to this Principle.

Methodology GIS Databases:
-SAC Bio Datasets (Accessed December 2014)

(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 local area surrounding the application area (10 kilometre radius) is extensively vegetated with approximately 80 per cent native vegetation remaining.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The Warren Bioregion and Shire of Manjimup retain approximately 79 and 84 per cent of their pre-European vegetation respectively. The Beard Vegetation Associations (1113 and 990) and Mattiske Vegetation Complexes (Mp and Mr) all retain 70 per cent or more pre-European vegetation.

These figures are considerably greater than the abovementioned 30 per cent threshold, therefore the vegetation under application does not occur within an extensively cleared area.

Given the above, the proposed clearing is not at variance to this Principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DPaW Managed Lands (%)
IBRA Bioregion*				
Warren	833,985	663,202	79	84
Shire*				
Shire of Manjimup	697,368	589,905	84	94
Beard Vegetation Association				
1113	7,193	6,990	97	90
990	10,520	10,380	70	76
Mattiske Vegetation				
Meerup (Mp)	17,722	17,677	99.75	94
Meerup (Mr)	227	227	100	71

Government of Western Australia (2013)
Mattiske and Havel (1998)

Methodology References:
-Government of Western Australia (2013)
-Commonwealth of Australia (2001)
-Mattiske and Havel (1998)

GIS Databases:
-NLWRA, Current Extent of Vegetation

(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 edge of a mapped (Geomorphic Wetlands Augusta - Walpole dataset) dampland (seasonally waterlogged basin) encroaches on the central and eastern application area, and a palusplain (seasonally waterlogged flat) is mapped approximately 80 metres north. The mapped dampland comprises approximately 0.7 hectares of the 4.5 hectares under application. There was no distinctive change in vegetation type from the drier area to the mapped wetland within the central and eastern application areas.

The proposed clearing is at variance to this principle. However, given that the proposed clearing includes only a small portion (0.7 hectares) of the larger 14.5 hectare dampland, impacts to the ecological function of the wetland are unlikely to be significant.

Methodology GIS Databases:
-Hydrography, linear
-Hydrography, hierachy
-Geomorphic Wetlands, Augusta to Walpole

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

Comments **Proposal may be at variance to this Principle**
The soils within the application area have been mapped by Northcote et al (1960-68) as swampy plains with chief soils of leached sands.

Leached sands are highly susceptible to wind erosion, and this may particularly be the case on the western most application area, which sits on a small ridge and will thus be subject to greater levels of wind stress. If left cleared and undeveloped for a long period of time, there is the potential for land degradation to occur within this area.

Sandy soils are highly permeable, therefore water erosion resulting from the proposed clearing is unlikely, despite a dampland being mapped within a portion of the application area, particularly given that no visible signs of waterlogging were identified on site (DER, 2014).

The proposed clearing may be at variance to this Principle. The requirement to undertake development works within three months of clearing will help to minimise wind erosion.

Methodology References:
-Northcote et al (1960-1968)
-DER (2014)

GIS Databases:
-SAC Bio Datasets (Accessed December 2014)

(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 closest conservation area to the proposed clearing is 100 metres north, known as D'Entrecasteaux National Park. The Park is comprised of a narrow strip of land 5 to 20 kilometres wide which stretches along the south coast for more than 130 kilometres between Augusta and Walpole. It is a result of the amalgamation of various State forests and timber reserves, Crown land, Shire of Manjimup reserves, conservation reserves, pastoral leases and freehold purchases between the 1970's and 1990's (Parks and Wildlife, 2014).

The proposed clearing may increase the risk of weeds and dieback spreading into this conservation area, however weed and dieback management measures will assist in adequately mitigating this risk.

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

Methodology References:
-Parks and Wildlife (2014)

GIS Databases:
-Parks and Wildlife Tenure

(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**

A mapped (Geomorphologic Wetlands Augusta - Walpole dataset) dampland encroaches on the eastern application areas, and a palusplain is mapped approximately 80 metres north.

The proposed clearing will involve the removal of approximately 0.7 hectares of vegetation associated with this mapped wetland, and therefore the proposed clearing may cause a short term increase in sedimentation if heavy rainfall occurs pre-construction.

However these impacts are likely to be minimal considering that the larger dampland is 14.5 hectares and it is the very edge of the wetland that is proposed for clearing.

Groundwater Salinity on site is mapped at 500 to 1000 milligrams per litre (marginal). Given this low salinity level, it is considered that the proposed clearing will not lead to a perceptible rise in the watertable and thus an increase in groundwater salinity levels.

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

Methodology GIS Databases:
-Hydrography, linear
-Hydrography, hierachy
-Geomorphologic Wetlands, Augusta to Walpole

(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 presence of highly permeable sandy soils mapped on site (Northcote et al, 1960-68), and relatively small size of the application areas (4.5 hectares), the proposed clearing is not likely to exacerbate the incidence or intensity of flooding.

The proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Databases:
-Northcote et al (1960-68)

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

Comments

The proposed clearing is for the purpose of providing new lease blocks for residents at the Windy Harbour settlement, access roads and fire clearance tracks, including building protection zones.

The proponent has advised that given the zoning of the site, there is no necessity for the Shire to obtain planning approval for the proposed works.

There have been no submissions from the public received for the proposed clearing.

The application area is zoned 'special use' under the town planning scheme.

Methodology

GIS Databases:
-Town Planning Scheme Zones

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dec.wa.gov.au/>. Accessed November 2014.
- DER (2014) Site Inspection Report for Clearing Permit Application CPS 6328/1. Site inspection undertaken 11/11/2014. Department of Environment Regulation, Western Australia.
- DotE (2014) *Setonix brachyurus* in Species Profile and Threats Database, Department of the Environment, Canberra.
- Government of Western Australia (2013): 2013 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- 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 Complexes of the South-west Forest Region of Western Australia*. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment 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.
- Parks and Wildlife (2014) D'Entrecasteaux National Park Information Sheet. Department of Parks and Wildlife, Perth, Western Australia. Accessed from <http://parks.dpaw.wa.gov.au/park/dentrecasteaux>
- 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.
- Valentine, L.E. and Stock, W. (2008) *Food Resources of Carnaby's Black Cockatoo (Calyptorhynchus latirostris) in the Gnarup Sustainability Strategy Study Area*. Edith Cowan University and Department of Environment and Conservation. December 2008.
- Western Australian Herbarium (1998-) *FloraBase - The Western Australian Flora*. Department of Parks and Wildlife. <http://florabase.dpaw.wa.gov.au/> (Accessed December 2014).