



1. Application details

1.1. Permit application details

Permit application No.: 2542/1
 Permit type: Area Permit

1.2. Proponent details

Proponent's name: MR Phillip Singleton

1.3. Property details

Property: LOT 8909 ON PLAN 201643 (MEERUP 6262)
 Local Government Area: Shire Of Manjimup
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
32		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
<p>Beard vegetation type 23: Low woodland; jarrah-banksia</p> <p>Mattiske Vegetation BWp: Low lying coastal plain, Humus podzols and peatty podzols with sandy topsoil and cemented subsoil, very infertile. Water gaining seasonally waterlogged, Scattered low emergent Banksia ilicifolia, No second storey, Heath and Sedgeland of Dasypogon bromeliifolius, Melaleuca thymoides, Patersonia occidentalis, Acacia myrtifolia Adenanthos obovatus, Anarthria scabra and Lyginia barbata</p> <p>Mattiske veg S4: Hyperhumid South, SouthEast of Northcliffe, Broad shallow swampy drainage lines at the interface between inland hills and coastal plain, Humus podzols in depression, sandy yellow duplex soils on low rises, Rises mildly water shedding with good infiltration but limited storage capacity; depressions waterlogged for prolonged periods, Scattered depauperate Eucalyptus marginata subsp. marginata some Nuytsia floribunda and Melaleuca preissiana No true second storey, Taxandria parviceps ms, Beaufortia</p>	<p>Vegetation to be cleared is described as being open heath with Melaleuca, Calastacius, Corymbia calophylla and an understorey of Sedges, native grasses, bracken fern.</p>	<p>Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)</p>	<p>Condition and type of vegetation assessed during a site inspection in August 2008</p>

sparsa, *Astartea fascicularis*,
Homalospermum fimum,
Adenanthos obovatus,
Anarthria scabra, *Anarthria*
prolifera, *Evandra aristata*,
Sphenotoma gracile and
Mesomelaena tetragona

Mattiske Vegetation HK:
Hyperhumid south SW of
Pemberton, Low dunes
and hummocks at the
transition between Darling
Plateau and South Coastal
Plain, Humus podzols with
friable dark brown
organic/iron pan at 1-15m
depth, infertile, Rises
mildly water shedding
laterally via subsoils,
shales water gaining,
seasonally waterlogged,
Woodland of *Eucalyptus*
marginata subsp.
marginata on rises,
thickets of *Melaleuca*
preissiana and *Banksia*
littoralis, *Agonis flexuosa*
under *Eucalyptus*
marginata subsp.
marginata, *Callistachys*
lanceolata with or under
Melaleuca preissiana and
Banksia littoralis,
Adenanthos obovatus,
Dasyopogon bromeliifolius,
Taxandria parviceps ms,
Anarthria prolifera,
Evandra aristata and
Leucopogon australis
subsp. *acutifolius*

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

The proposed clearing is for the removal of bracken and reeds for the purpose of pasture for cattle. The vegetation is considered to be in good-degraded (Keighery, 1994) condition.

The application area is within the Walpole River Suite of wetlands which are unique to the region and recognised for their representative nature, faunal values, and hydrological and ecological linkages (V & C Semeniuk Research Group, 1997). The V & C Semeniuk Research Group further identified in this paper that the Northcliffe area, where the clearing is proposed, has a large number of wetland suites within a small area indicating a richness in diversity of wetland types.

The unique wetlands within the application area provide specific habitats for fauna and flora species with limited distribution. A site report (2008) identified possible habitat for threatened and priority flora species. There are numerous invertebrate, amphibian and aquatic fauna species endemic to this area which are reliant upon the wetland habitat characteristics found there (V & C Semeniuk Research Group, 1997).

As the application area is considered to contain both sumpland and palusplain wetlands the vegetation is likely to be diverse. Sumpland vegetation will contain wetland obligate species, whereas the palusplain will include both wetland obligate and facultative species.

There are other sites within the local area with better condition vegetation, however as this suite of wetlands is specific to this region it is considered that clearing may be at variance to this principle.

Methodology

Site Visit, 2008
V & C Semeniuk Research Group, 1997
Keighery, 1994
GIS Databases:

- Meerup 50cm Orthomosaic - Landgate 2004
- Geomorphic Wetlands, Augusta to Walpole

(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 at variance to this Principle

The area proposed to be cleared is in good-degraded (Keighery, 1994) condition and is considered to be situated within the Walpole River Suite of wetlands (V & C Semeniuk Research Group, 1997).

These wetlands exist due to specific precipitation/evaporation conditions which only exist in the south coast of Western Australia. This has created unique habitats for species with limited distribution, in particular reptile, amphibian and invertebrate species (V & C Semeniuk Research Group, 1997). There are fauna species within this suite of wetlands that are considered to be endemic to this particular suite of wetlands, such as *Calamoecia elongata* and *Paracyclops* sp. nov.

It is likely that the vegetation on this property supports threatened fauna, including western ringtail possums, quokkas, southern brown bandicoot, brushtail phascogale. Mammalian species which rely upon aquatic habitats such as Quenda (*Isodon obesulus*) and Water Rat (*Hydromys chrysogaster*) are also likely to utilise the proposed clearing area. There are district fauna records in the vicinity for forest red-tail black cockatoo and quokka and streams to the north of the property may be potential habitat for quokka (DEC 2008).

There is other vegetation within the local area containing similar habitat, however the suite of wetlands within the regional area is unique and specific to that region. Endemic species may be sheltered within the application area. It is therefore considered that the clearing is at variance to this principle.

- Methodology** DEC 2008
 Site Visit, 2008
 V & C Semeniuk Research Group, 1997
 GIS Databases:
 - Meerup 50cm Orthomosaic - Landgate 2004
 - Geomorphic Wetlands, Augusta to Walpole

(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

There are 2 landform types within the property that are conducive to 13 species of threatened flora, two being rare flora. Populations of these species occur within the area of Northcliffe and Windy Harbour (DEC 2008). A flora survey is required to conclusively confirm whether rare flora may exist on the property.

The rare flora species *Meziella trifida* is known from the regional area and has been found on the same vegetation association as the area under application. The clearing as proposed may be at variance to this principle.

- Methodology** Site Visit, 2008
 DEC 2008
 SAC Biodatasets - accessed 20 August 2008
 GIS Databases:
 - Meerup 50cm Orthomosaic - Landgate 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 threatened ecological community.

Comments Proposal is not likely to be at variance to this Principle

There are no known records of Threatened Ecological Communities (TEC's) within the local area (10km radius). The area proposed to be cleared does not contain the habitat characteristics of other South West TEC's and is unlikely to be at variance to this principle.

- Methodology** SAC Biodatasets - accessed 17 August 2008
 Site Visit report, 2008
 GIS Databases:
 - Meerup 50cm Orthomosaic - Landgate 2004

(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

Vegetation within the application area is well represented locally, regionally and in secure tenure. The local area (10km radius) retains approximately 70% of native vegetation.

It is noted that this area is considered to be regionally significant for wetland diversity due to the high number of consanguineous wetlands (V & C Semeniuk Research Group, 1997).

However given the local representation of vegetation the clearing cannot be considered to be a significant remnant in a highly cleared area, and is therefore unlikely to be at variance to this principle

Methodology Shepherd, 2006
Mattiske, 1998
V & C Semeniuk Research Group, 1997
GIS Databases:
- Meerup 50cm Orthomosaic - Landgate 2004

(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 area proposed to be cleared is considered to be within the consanguineous Walpole River Suite of Wetlands. These wetlands are declared Environmentally Sensitive Areas due to the condition of the wetlands, representative nature, faunal values and hydrological and ecological linkages provided.

Consanguineous wetlands area related to each other through geomorphic, stratigraphic and hydrologic similarities (V & C Semeniuk Research Group, 1997). The application area is considered to contain Sumpland and Palusplain wetlands from this Walpole River consanguineous suite. Vegetation within the application area is wetland obligate, wetland facultative and associated buffering vegetation.

The clearing is therefore at variance to this principle.

Methodology Site Visit, 2008
DAFWA, 2008
V & C Semeniuk Research Group, 1997
GIS Databases:
- 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 is at variance to this Principle

The area proposed to be cleared has two major soil types, identified during a DAFWA site inspection (2008). Both soil types are flat with poor drainage and wet soils. DAFWA (2008) have advised that clearing native vegetation within the application area will result in water logging.

No other land degradation, in relation to the proposed clearing, were identified by DAFWA (2008).

Due to the likelihood of waterlogging the proposed clearing is at variance to this principle.

Methodology DAFWA, 2008
Site Report, 2008

(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

The local area (10km radius) around the proposed clearing is approximately 60% conservation estate. The application area lies within a vegetated corridor between two national parks. Clearing within the application area may fragment this corridor and interrupt species flow. However there are other corridors of vegetation nearby which are likely to lessen the impact of the proposed clearing.

The area under application does contain unique wetland habitats and is considered to be part of the consanguineous Walpole River Suite which extends into the Boorara and D'Entrecasteaux National Parks to the south and west. As these wetlands are linked by geomorphic and hydrologic features (V & C Semeniuk Research Group, 1997) clearing within the application area may impact upon wetlands within the same Walpole River Suite.

It is considered that the proposed clearing may be at variance to this principle.

Methodology Site Visit, 2008
V & C Semeniuk Research Group, 1997

- GIS Databases:
- Hydrography, linear
 - Meerup 50cm Orthomosaic - Landgate 2004
 - CALM Managed Lands and Waters

(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 at variance to this Principle

The area proposed to be cleared is considered to be within the Walpole River Suite of wetlands and contains associated vegetation. Clearing vegetation within this area will cause sedimentation and is likely to add to the nutrient load within the wetland due to the removal of vegetative buffers.

During a site visit DAFWA (2008) advised that the clearing is likely to contribute to water logging. This water logging may degrade water quality by permanently inundating areas not normally subject to inundation.

It is considered that the proposed clearing is at variance to this principle.

- Methodology** Site Visit, 2008
DAFWA, 2008
V & C Semeniuk Research Group, 1997
GIS Databases:
- Meerup 50cm Orthomosaic - Landgate 2004
- Geomorphic 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

DAFWA (2008) have advised that clearing within the proposed area is unlikely to increase surface water runoff which would result in flooding. Therefore, clearing is unlikely to be at variance to this principle.

- Methodology** DAFWA, 2008

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

Comments

DAFWA (2008) have advised that the proposed land use of pasture for cattle is likely to result in eutrophication due to the soil types found with the proposed clearing area.

The Shire have advised they have no objection to the clearing.

- Methodology**

4. Assessor's comments

Comment

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 Principles (b), (f), (g) and (i), may be at variance to Principles (a), (c) and (h), is not at variance to the remaining principles.

5. References

- DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DEC TRIM ref doc59511
- DEC Site Visit Reprt, 2008, TRIM ref no. DOC 60475
- 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.
- 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.
- 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.
- V & C Semeniuk Research Group for the Water and Rivers Commission (1997) Mapping and Classification of Wetlands from Augusta to Walpole in the South West of Western Australia. Water Resource Technical Series WRT 12. Water and Rivers Commission, Western Australia.

6. Glossary

Term	Meaning
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)