



1. Application details

1.1. Permit application details

Permit application No.: 1859/1
 Permit type: Area Permit

1.2. Proponent details

Proponent's name: Palandri Wines Ltd.

1.3. Property details

Property: LOT 306 ON PLAN 252219 HAYWARD STREET, COOKERNUP 6220
 Local Government Area: Shire Of Harvey

1.4. Application

Clearing Area (ha)	Method of Clearing	For the purpose of:
0.38	Mechanical Removal	Viticulture

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: Unit 968 - Medium woodland; jarrah, marri and wandoo.</p>	<p>The vegetation consists of 0.38ha of predominantly Eucalyptus rudis (Flooded Gum) and two Melaleuca trees with the understorey consisting of exotic pasture species.</p>	<p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)</p>	<p>Vegetation condition established through site visit conducted by DEC officers on the 29th June 2007 (DOC30152) and aerial photography (Bunbury 50cm Orthomosaic - DLI04).</p>
<p>Heddle: Guildford complex - Open forest to tall open forest and woodland. This complex is dominated by a mixture of an open-forest, in sections a tall open-forest, of marri-wandoo-jarrah and a woodland of wandoo, with minor components including the fringing woodland of E. rudis - M. raphiophylla along the streams (Heddle <i>et al</i>, 1980).</p>		<p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)</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 at variance to this Principle**

The vegetation under application is in a completely degraded (Keighery, 1994) and fragmented state in the middle of an area being prepared for growing vines.

The 0.38ha is comprised of approximately 20 native trees, predominantly Eucalyptus rudis (Flooded Gum) and two Melaleuca trees, with an understorey of exotic pasture species (DEC, 2007). Given the low number of species within the applied area, the dominance of the pasture grass in the understorey and the fact that the immediate surrounding area will consist of vines, it is highly unlikely that any regeneration of native vegetation will occur in this area.

It is therefore concluded that the proposal is not at variance to this principle.

Methodology DEC (2007)
 Keighery (1994)

(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

The area proposed to be cleared consists of 0.38 ha of native trees with an understorey consisting of exotic pasture species (DEC, 2007). Due to these trees being isolated and in the middle of an area being prepared for vines with no native understorey, the proposed clearing is not considered to be significant habitat for fauna.

It is therefore concluded that the proposal is not at variance to this principle.

Methodology DEC (2007)

(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

27 rare and priority flora species have been recorded within the local area (10km radius) of the proposed clearing area with the closest being *Synaphaea odocholeops*, a Priority 1 species, which is within a 1km radius of the applied area.

Due to the completely degraded condition (DEC, 2007 & Keighery, 1994) of the applied area with the understorey consisting of pasture grass, it is highly unlikely that any priority or declared rare flora species exist within the proposed clearing area.

It is therefore concluded that the proposal is not likely to be at variance to this principle.

Methodology DEC (2007)
Keighery (1994)
GIS Databases:
- SAC Bio datasets - DEFL
- SAC Bio datasets - southwest_wellington_waherb

(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

Twelve threatened ecological communities occur within the local area (10km radius), with the closest being *Eucalyptus calophylla* - *Eucalyptus marginata* woodlands on sandy clay soils (SCP3b) at approximately 5.5km north-east of the proposed clearing area.

Two threatened plant communities also exist within the local area with the closest corresponding with the above TEC at approximately 5.5km from the proposed clearing area.

Due to the area proposed for clearing being in a completely degraded condition (Keighery, 1994 & DEC, 2007) with the understorey consisting only of exotic pasture grasses and the fact that the vegetation is isolated from any other vegetation, particularly the closest threatened ecological and plant communities, it is considered that the vegetation under application is not a threatened or priority ecological community or is considered necessary for the maintenance of a threatened ecological community.

Therefore, the proposal is not considered to be at variance to this principle.

Methodology DEC (2007)
Keighery (1994)
GIS Databases:
- SAC Bio datasets - Threatened & Priority Ecological Communities - DEC
- Threatened Plant Communities - DEP 06/95

(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

The proposed clearing area is part of the SWA2 subregion of the Swan Coastal Plain biogeographic region within the Shire of Harvey which have 41.2% ('depleted'), 38.1% ('depleted') and 60.1% ('least concern') of their pre-European vegetation extent remaining respectively (Department of Natural Resources and Environment, 2002, Shepherd *et al*, 2001 & Shepherd, 2006).

The vegetation is a component of the Beard vegetation classification 968: Medium woodland; jarrah-marri-wandoo, which has 32.7% remaining and is therefore of a 'depleted' status for biodiversity conservation. The vegetation is also within the Heddle vegetation complex Guildford (Open forest to tall open forest and woodland), which is of an 'endangered' status with only 5.0% remaining (Department of Natural Resources and

Environment, 2002, Heddle *et al*, 1980 & Shepherd, 2006).

The vegetation within the proposed clearing area is completely degraded (Keighery, 1994) consisting of 20 native trees with an understorey of only exotic pasture species (DEC, 2007). Despite the fact that there is only 5.0% of the Guildford vegetation complex remaining, due to the condition and size of the vegetation, the proposed clearing area is not considered to be a good representation of this complex and therefore is not considered to be significant as a remnant in an area that has been extensively cleared.

It is therefore concluded that this proposal is not likely to be at variance to this principle.

Methodology DEC (2007)
Department of Natural Resources and Environment (2002)
Heddle *et al* (1980)
Keighery (1994)
Shepherd *et al* (2001)
Shepherd (2006)
GIS Databases:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Local Government Authorities - DLI
- Pre-European Vegetation - DA 01/01
- Heddle Vegetation Complexes - DEP 21/06/95

(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**

The closest watercourse is a minor, perennial watercourse approximately 600m to the north-east of the proposed clearing area with Weeks Brook, approximately 1.2km south of this area.

Approximately 50% of the local area (10km radius) consists of multiple use wetlands including the area proposed to be cleared. A number of wetlands of conservation and resource enhancement categories also exist within the area, including EPP Lakes present to the north and west of the proposed clearing area with the closest approximately 5.6km away.

The proposed clearing area is also within the Peel-Harvey EPP Area. The proposed clearing of 0.38 ha which is completely degraded (Keighery, 1994) is not considered to impact upon the EPP Area.

Due to the distance of the proposed clearing area to nearby watercourses and the condition and size of the vegetation under application as well as the fact that the multiple use wetland that the proposed clearing area is situated in is already predominantly cleared, it is concluded that the proposed clearing is not likely to be at variance to this principle.

Methodology Keighery (1994)
GIS Databases:
- Hydrography, linear - DOE 1/2/04
- Hydrography, linear (hierarchy) - DoW
- EPP, Areas - DEP 06/95
- EPP, Lakes - DEP 1/12/92
- Geomorphic wetlands (Mgmt Categories), Swan Coastal Plain - DEC

(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 proposed clearing area lies within a moderate-low risk acid sulfate soil area and a low salinity risk area with a groundwater salinity of 3000-7000mg/L.

Due to the scale of the proposed clearing, it is unlikely that the removal of these trees will cause appreciable land degradation.

Methodology GIS Databases:
- Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC
- Salinity Risk LM 25M - DOLA 00
- Groundwater Salinity, Statewide - 22/02/00

(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 at variance to this Principle

Nine DEC managed lands and three Register of National Estate areas exist within the local area (10km radius) of the proposed clearing area. The closest conservation areas are the Harris River State Forest and the Dwellingup State Forest approximately 3.9km to the east.

Six System 6 Conservation Reserves are also within a 10km radius of the proposed clearing area with the closest being C78 (Reserve C22977, Harvey) (DCE, 1983) which is approximately 3.4km away.

The proposed clearing area consists of 0.38ha of trees within a predominantly cleared area and is not connected to any of the conservation areas within the local area.

It is therefore concluded that the proposal is not at variance to this principle.

Methodology DCE (1983)

GIS Databases:

- CALM managed lands and waters - CALM 1/07/05
- Register of National Estate - EA 28/01/03
- System 6 Conservation Reserves - DEP 06/95

(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 proposed clearing is within the Harvey Estuary - Harvey River hydrographic catchment and falls under the Harvey Irrigation District which is managed under the Rights in Water and Irrigation Act 1914.

The proposed clearing area lies within the Environmental Protection (Peel Inlet - Harvey Estuary) Policy 1992 area. This policy addresses the protection of the estuary on the basis that –

"Nutrient enrichment of the Estuary has been caused by the clearing of native vegetation in the policy area and by land uses that result in nutrients, especially phosphorous, leaching into waterways in the policy area and then flowing into the estuary." Therefore, the clearing of further native vegetation would not be considered consistent with this policy however, given the size, location and condition of the vegetation proposed for clearing it is unlikely that the clearing of this vegetation would be considered to be at variance to this principle.

The implementation of appropriate land management on this property, enforced through a condition of the planning consent by the Shire that the applicant comply with the "Environmental Management Guidelines of Vineyards" (DEP & WRC, 2002) will help to ensure further nutrient run-off does not occur into nearby watercourses and subsequently the estuary.

Methodology DEP & WRC (2002)

Environmental Protection (Peel Inlet - Harvey Estuary) Policy 1992

GIS Databases:

- Hydrographic Catchments - Catchments - DOW
- RIWI Act, Irrigation Districts - WRC 13/3/02

(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 closest watercourse to the proposed clearing area is a minor, perennial watercourse approximately 600m away however, there are also two major drains approximately 300-400m from the vegetation, one of which runs through the property. The property is also situated within a multiple use wetland and therefore may be prone to waterlogging.

The majority of the property however, is already cleared and due to the size and distance of the remaining vegetation under application to watercourses and drains in the local area (10km radius), it is considered that the removal of the vegetation from the proposed site will not cause, or exacerbate, the incidence of flooding.

It is therefore concluded that the proposal is not at variance to this principle.

Methodology GIS Databases:

- Hydrography, linear - DoE 1/2/04
- Hydrography, linear (hierarchy) - DoW

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

Comments

Lot 306 Hayward Street, Cookernup is zoned 'Intensive Farming' under the Town Planning Scheme.

The Shire of Harvey (2007) has advised that "at its meeting on 12th June 2007, Council resolved to approve a vineyard and workers accommodation on Lots 135, 136 and 306 Hayward Street, Cookernup, subject to conditions being imposed." "Council therefore has no objection to the proposed clearing application." The two conditions on the planning consent that may relate to the clearing application include - 2(b) "Compliance with Environmental Management Guidelines of Vineyards" and 2(e) "A re-vegetation plan be prepared to the satisfaction of Council, including buffer planting along all boundaries." The vineyard guidelines have also been considered within this assessment.

The property falls under the Harvey Irrigation District gazetted for management under the Rights in Water and Irrigation Act 1914. The water requirements for the vineyard will be obtained through access to scheme water and therefore the proponent does not require any further water licences for this proposal.

The proposed clearing is within the Peel Inlet – Harvey Estuary EPP area. The clearing of 0.38ha is not considered to impact on the EPP area.

It is noted that the intended land use is viticulture, the Shire has put a condition on the Planning Consent of the vineyard that the proponent adhere to the "Environmental Management Guidelines for Vineyards." Compliance with these guidelines will help to decrease any potential impact the vineyards may have on the policy area through ensuring that nutrient run-off is significantly reduced.

Methodology

Environmental Protection (Peel Inlet - Harvey Estuary) Policy 1992

Environmental Management Guidelines for Vineyards (2002)

Shire of Harvey (2007)

GIS Databases:

- Town Planning Scheme Zones - MFP 8/98

- RIWI Act, Irrigation Districts - WRC 13/3/02

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Viticulture	Mechanical Removal	0.38	The assessment has found that the proposal to clear 0.38ha of native trees is not at variance to principles a, b, d, h and j and not likely to be at variance to principles c, e, f, g and i.

5. References

- DCE (1983) Conservation Reserves for Western Australia as recommended by the Environmental Protection Authority - 1983: The Darling System - System 6 Part II: Recommendations for Specific Localities, Department of Conservation and Environment, Western Australia.
- DEC & WRP (2002) Environmental Management Guidelines for Vineyards, Department of Environmental Protection and the Water and Rivers Commission, Western Australia.
- DEC (2007) Site visit report, Department of Environment and Conservation, Western Australia. TRIM ref DOC30152.
- 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.
- Heddle, 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. 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. (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.

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)