



1. Application details

1.1. Permit application details

Permit application No.: 155/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: MR Lyndon Mervyn Edwards

1.3. Property details

Property: PART LOT 5 ON PLAN 5888 (WELLESLEY 6233)

Local Government Area: Shire Of Harvey

Colloquial name: Wellesley Rd

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.75		Mechanical Removal	Extractive Industry

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 Units: 6: Medium woodland; tuart & jarrah 1000: Mosaic: Medium forest; jarrah-marri / Low woodland; banksia / Low forest; teatree (Melaleuca spp.) (Hopkins et al. 2001)(Shepherd et al. 2001)	The vegetation over storey consisted of mainly Peppermint trees (Agonis flexuosa) with a few Jarrah trees (Eucalyptus marginata). There were some large and small Banksias (B. grandis). The mid storey and understorey were quite degraded, however, some species included Grass trees (Xanthorrhoea preissii), Hibbertia spp., Styliidium brunonianum and pasture weeds. The vegetation had a number of tracks through it with some dead trees pushed to the sides (Site visit DoE Officers).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Belinda Walker (DoE) and Judith Carter (DoE) undertook a site visit on 10th November 2004, accompanied by representatives of the Shire of Harvey. The vegetation has incurred disturbances including the introduction of weeds and the presence of tracks. It is situated on the edge of a sand mining pit and long term survival of the vegetation is not likely.
Hedde Vegetation complex Karrakatta - central and south Bassendean - central and south (Hedde et al. 1980)			

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 biodiversity value of the area under application is limited, as the vegetation is quite degraded (as stated in the DoE site visit 2004). It represents ~1% (0.75ha) of the total vegetation remaining on the property and is on the edge of a large sand pit which reduces the likelihood of long term survival of vegetation.

Methodology DoE site visit (2004).
GIS databases:
- Declared Rare and Priority Flora List - CALM 13/08/03
- Hedde Vegetation Complexes - DEP 21/06/95
- Pre European Vegetation - DA 01/01.

(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

There was no request for assessment by CALM. Site visit indicated that the structure of the vegetation under application is significantly altered by multiple disturbance. It is therefore unlikely to be significant for native fauna.

Methodology DoE site visit (2004).

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

Comments Proposal may be at variance to this Principle

Drakaea micrantha (Declared Rare Flora) occurs 1.05km south east of the area under application. There are five other specimens in the local area (10km radius) and all occur within the same Beard and Heddle vegetation types as the area under application and on privately owned properties. There are vegetated links from all six DRF specimens in the local area and the area under application.

There is one Priority 2 species in the local area: *Boronia capitata* subsp. *gracilis* occurs 6.4km north north east of the area under application and occurs within the same Beard and Heddle vegetation types as the area under application. This specimen is located within the Myalup state forest and there is a vegetated link to the area under application.

There are four Priority 3 species in the local area two of which occur on the same Beard and Heddle vegetation types as the area under application. The closest is *Acacia semitrullata*, 6.1km north of the area under application and occurs within Myalup state forest. *Myriophyllum echinatum* (P3) occurs within Byrd Swamp Nature Reserve and both of these specimens are linked by vegetation to the area under application (all other specimens are not linked by vegetation).

There are three Priority 4 species (six specimens) in the local area, three of which occur on the same Beard and Heddle vegetation types as the area under application. The closest is *Caladenia speciosa*, 5.3km north west of the area under application and in within Myalup state forest. All but one specimen is linked to the area under application by vegetation. The isolated species occurs within Benger Swamp Nature Reserve.

Methodology GIS databases:

- Declared Rare and Priority Flora List - CALM 13/08/03
- Heddle Vegetation Complexes - DEP 21/06/95
- Pre European Vegetation - DA 01/01.

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significant ecological community.

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

There is one Threatened Ecological Community (site ID BYRD01) in the local area (10km radius). It is located 6.9km north east of the proposed clearing (the buffer radius required for this community is 1000m). This TEC occurs within the Byrd Swamp Nature Reserve and is vegetatively linked to the area under application.

Methodology GIS database:

- Threatened Ecological Communities - CALM 15/7/03
- 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 at variance to this Principle

The application is located in the Swan Coastal Plain Bioregion in the Shire of Harvey. The extent of native vegetation in these areas is 43.0% and 60.1% respectively (Shepherd et al. 2001). There is approximately 30% of native vegetation remaining in the local area. Much of the vegetation north of the proposed clearing is plantation and extensive areas have been cleared to the east (and to a lesser extent to the west along the coast) for the purpose of agriculture.

All of the Beard vegetation types and Heddle vegetation complexes in the area under application are under 30%. The State Government is committed to the National Objectives Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-1750 (Department of Natural Resources and Environment 2002; EPA, 2000). Within the local area (10km radius) these vegetation types have approximately 40% remaining.

		Pre - European (ha)	Current Extent (ha)	Remaining (%)	Conservation* status	% In reserves/CALM managed land
IBRA Bioregion						
-Swan Coastal Plain***	ILZ	1 498 297	626 512	41.8	Depleted	
Shire- Harvey		168 294	101 085	60.1	Least Concern	
Beard Unit 6		79 001	18 398	23.3	Vulnerable	0
Beard Unit 1000		119 340	29 396	24.6	Vulnerable	0
Hedde Vegetation Complex						
Karrakatta		49 912	14 729	30	Vulnerable	
- central and south						

* (Shepherd et al. 2001)

** (Department of Natural Resources and Environment 2002)

*** Within the Intensive Landuse Zone

The property has approximately 75 hectares (76%) of native vegetation remaining, and if implemented, this clearing proposal will leave 75% remaining.

The proponent owns the property immediately to the south of the area under application. This area (Lot 6 on plan 5888, Wellesley Rd) is subject to a National Trust restrictive covenant. Approximately 1.3 ha of Lot 6 contains the above mentioned vegetation types that are under 30%. This is considered to be an adequate offset for the area under application (that is for 0.75 ha of semi-degraded vegetation).

Methodology EPA (2000)
Hopkins et al. (2001)
Havel (2002)
Shepherd et al. (2001).
GIS databases:
- Hedde Vegetation Complexes - DEP 21/06/95
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00
- Pre European Vegetation - DA 01/01.

(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 at variance to this Principle

Conservation Category Geomorphic wetlands lie to the east and west within the local area (10km radius). The closest is 820m south east of the area under application. A RAMSAR wetland lies 6.4km north west of the area under application (within a Conservation Category wetland).

Resource Enhancement Geomorphic wetlands lie to the south east, south west and north east of the proposed clearing within the local area. The closest is 1.1km south east of the area under application.

Multiple Use Geomorphic wetlands lie largely to the east but also to the west of the area under application. The closest is 1.3km west of the area under application.

There are forty-six EPP lakes in the local area. The closest is 1.2km west of the area under application.

Areas subject to inundation lie 934m east of the area under application (in the north east corner of the property).

Methodology GIS databases:
- EPP Lakes - DEP 28/07/03
- Geomorphic Wetlands (Mgt Categories) Swan Coastal Plain - DoE 15/9/04
- Hydrography Linear - DoE 1/2/04
- RAMSAR, Wetlands - CALM 21/10/02.

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

Comments Proposal is not at variance to this Principle

There was no assessment undertaken by the Department of Agriculture.

There is a low risk of salinity within the proposed clearing.

There is a class 3 risk (no know risk) of acid sulphate soils within the area under application.

- Methodology** GIS databases:
- Acid Sulfate Soil Risk Map, SCP - DoE 01/02/04
 - Salinity Mapping LM 25m - DOLA 00
 - Salinity Monitoring LM 50m - DOLA 00
 - Salinity Risk LM 25m - DOLA 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 may be at variance to this Principle

Myalup State Forest is 4.5km north of the proposed clearing and there is a vegetated link to the area under application via privately owned properties.

Yalgorup National Park (Register of National Estate) is 6.3km north west of the proposed clearing and there is no substantial vegetated link to the area under application.

Byrd Swamp Nature Reserve is 6.5km north east and Benger Swamp Nature Reserve is 6.2km east of the area under application. Byrd Swamp Nature Reserve has a vegetated link to the area under application via privately owned properties.

An un-named Conservation Reserve is 6.9km south west of the proposed clearing and there is no substantial vegetated link to the area under application.

There are seven System 6 Conservation Reserves in the local area. The closest is 1.3km north west of the proposed clearing.

A Register of Nation Estate, Cathedral Avenue and Wetlands, is 7.8km south west of the proposed clearing and there is no substantial vegetated link to the area under application.

Despite the presence of linkages to the area under application, the clearing of 0.75ha of vegetation (that is in a semi-degraded condition) is not likely to impact these nearby conservation areas.

- Methodology** GIS databases:
- CALM Managed Lands and Waters - CALM 1/06/04
 - 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 at variance to this Principle

The area is part of the RIWI Act Groundwater area (South West Coastal). The quality of this groundwater resource is not likely to deteriorate as a result of the proposed clearing.

'The area under application is well drained (high relief) with a high rainfall, medium evaporation rate and sandy soil. Groundwater salinity is low and the overall salinity risk is low (R. Smith, Supervising Hydrogeologist, DoE, pers. comm. 2004).'

- Methodology** Hydrogeological advice, R. Smith, Supervising Hydrogeologist, DoE, pers. comm. (2004).

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.

Comments Proposal is not at variance to this Principle

Due to the scale of the proposed clearing, flooding impacts are unlikely to occur as a result of the clearing.

- Methodology** Hydrogeological advice, R. Smith, Supervising Hydrogeologist, DoE, pers. comm. 2004.

Planning instrument or other matter.

Comments Shire of Harvey does not support the clearing of Karrakatta Complex

Methodology Submission from Shire of Harvey Trim Ref SWD41430

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Extractive Industry	Mechanical Removal	0.75	Grant	<p>The proposal is at variance to Principle (e). - However, the vegetation under application is in a semi-degraded state (Keighery condition - Good) and represents approximately 1% of the native vegetation on the property. It is on the edge of a large sand pit, which reduces the likelihood of long term survival. Additionally, 37.5ha of the property immediately to the south of the area under application, owned by the proponent, is subject to a National Trust restrictive covenant. Approximately 1.3 ha of this lot contains the vegetation types that are under 30%. This is considered to be an adequate offset for the area under application (that is for 0.75 ha of semi-degraded vegetation).</p> <p>The proposal may be at variance with Principles b, c and h. - Principle (b): The structure of the vegetation under application is significantly altered by multiple disturbance. It is therefore unlikely to be significant for native fauna.</p> <p>- Principle (c): The structure of the vegetation under application is significantly altered by multiple disturbance. The DRF and Priority listed flora in the local area (10km) are unlikely to occur in the area under application due to its degraded condition.</p> <p>- Principle (h): Despite the presence of linkages of the area under application to nearby conservation areas, the clearing of 0.75ha of vegetation that is in a semi-degraded condition is not likely to have a great impact on these areas..</p>

5. References

- 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.
- Havel, J.J. and Mattiske Consulting Pty Ltd (2002) Review of management options for poorly represented vegetation complexes, Conservation Commission.
- 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, BJ (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.