



1. Application details

1.1. Permit application details

Permit application No.: 540/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: **Doreen Anne Gerovich**

1.3. Property details

Property: LOT 1 ON DIAGRAM 82342
Local Government Area: City Of Armadale
Colloquial name: Canning Location 31 Vol 1929, Fol 535

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.02		Mechanical Removal	Fence Line Maintenance

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 999: Medium Woodland; Marri (Hopkins et al. 2001, Shepherd et al. 2001).	The area under application is located at the back (south-eastern boundary) of a residential property, which is located 1km east of Armadale. The property is zoned as rural, and comprises a horse paddock and a wetland. The wetland is adjacent to the area under application, which forms part of the Wungong Brook fringing vegetation. The clearing is proposed for maintenance of the fenceline on the boundary of the property.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Some grazing has previously taken place in the wetland. A cleared area of approximately 1-3 metres in places has been established on the boundary by the movement of horses. The vegetation in the area under application is a monoculture of melaleuca sp. along the fenceline on the property boundary.
Heddle Vegetation Association: Guildford Complex - Open forest to tall open forest and woodland (Government of Western Australia 2000, Heddle et al. 1980).	The native vegetation that is in the area under application consists almost entirely of melaleuca species and some invasive weed species (Site visit 23.03.05).		

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 area under application is classified as an EPP Lake, an ANCA wetland, and is also classified as an EPP Wetland (draft). However, the immediate area has been altered from its original state due to the creation of a causeway along the boundary fenceline, grazing activities and the presence of weed species.

The area under application consists a vegetated strip approximately 2m wide and 50m long, made up of a monoculture of melaleuca species (Site visit 23/03/05). It does not, therefore contain a high level of species endemism.

Further, given the small size and linearity of the area under application, it is unlikely that the clearing as proposed will be at variance to this Principle.

Methodology Site visit (23.03.05)
GIS Databases:

- EPP, Lakes - DEP 28/07/05
- EPP, Wetlands (draft) - DEP 21/07/04
- ANCA wetlands - CALM 08/01

(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

Vegetation in the area under application has been altered from its original condition due to grazing activities and the presence of weed species. The area under application consists a vegetated strip approximately 2m wide and 50m long, made up of a monoculture of melaleuca species (Site visit 23/03/05).

Given the high level of disturbance and the small size and linearity of the area under application, it is unlikely that the clearing as proposed will compromise significant habitat for indigenous fauna.

Methodology Site Visit 23.03.2005

GIS Databases:

- Swan Coastal Plain North 1m Orthomosaic - DLI 01/04

[The comprehensiveness of the database is dependent on the amount of survey carried out in the area and does not necessarily represent a comprehensive listing]

(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

DEH (2000) advises that it is possible that species of Diuris orchids, which are declared Rare under the Wildlife Conservation Act 1950 may occur in the wet heathlands of the Gibbs Road Swam System. However, there is no record of any significant flora occurring within in 1 km of the area under application.

Given the small size of the area under application and the level of local disturbance at the fenceline, it is unlikely that the clearing as proposed is at variance with this Principle.

Methodology Site Visit (23.03.05)

DEH (2000)

GIS Databases:

- Declared Rare and Priority Flora List - CALM (CALM 2004)
- Threatened Ecological Communities - CALM 15/07/03

(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 is no record of any Threatened Ecological Communities within 1km of the area under application.

However, DEH (2000) advise that the seasonally inundated paperbark swamp communities are significant because they have otherwise largely disappeared from the metropolitan area.

Given the small size and linear shape of the area under application and the level of local disturbance at the fenceline, it is unlikely that the clearing as proposed is at variance with this Principle.

Methodology Site Visit (23.03.2005)

DEH (2000)

GIS Databases:

- Threatened Plant Communities - DEP 06/95 (Swan Coastal Plain)
- Threatened Ecological Communities - CALM 15/07/03

(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 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-European settlement (Department of Natural Resources and Environment, 2002; EPA, 2000).

The Beard and Heddle vegetation complexes within this application are below the recommended minimum of 30% representation (Shepherd et al 2001, Hopkins et al 2001).

However, given the small size and relative disturbance of the area under application, it is unlikely that the vegetation is significant as a remnant of native vegetation in an area that has been extensively cleared. It is also noted that up to 389 ha of the Guildford Complex is in Reserves and/or CALM managed land.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation status**	In Reserves/CALM-managed land,
IBRA Bioregion – SCP	1,529,235	657,450	43	Depleted	
Shire – City of Armadale	No information available				
Beard vegetation association – 999	275,380	32,451	11.8	Vulnerable	8.1%
Heddle vegetation – Guilford Complex	24,513	1,369	6	Endangered	389ha

* Shepherd et al. (2001)

** Department of Natural Resources and Environment (2002)

Methodology Site Visit (23.03.2005)
Shepherd et al. (2001)
Heddle et al (1980)
Department of Natural Resources and Environment (2002)
EPA (2000)
GIS Databases:
- Pre-European Vegetation - DA 01/01
- Heddle Vegetation Complexes - DEP 21/06/95
- Interim Biogeographic Regionalisation of Australia - EA 18/10

(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 area under application is located within an EPP Lake and an ANCA wetland, the Gibbs Road Swamp System.

An EPP Wetland exists on the Applicant's property, Lot 1 on Diagram 82342, and extends into the neighbouring property to the north. This wetland is located to the west of the area under application, the southern end of which is as close as 2m to the wetland.

The vegetation under application forms part of the buffer area for Wungong Brook.

The area under application has historically been disturbed by livestock traffic along the existing fenceline. The clearing as proposed will not compromise the watercourse or wetland adjacent to this disturbed area.

Methodology Site Visit (23.03.05)
DEH (2000)
GIS Databases:
- EPP, Lakes - DEP 28/07/03
- ANCA wetlands - CALM 08/01
- EPP, Wetlands (draft) - 21/07/04
- Hydrography, linear - DOE 01/02/04
- Geomorphic Wetlands - Swan Coastal Plain - DOE 15/09/04
- EPP, Areas - DEP 06/95
- Potential Groundwater Dependant Ecosystems DOE 2004

(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

Given the small size, linearity and current level of disturbance of the area under application, it is unlikely that the clearing as proposed will cause appreciable land degradation.

Methodology GIS database:
- Acid Sulphate Soil risk map, SCP DOE 01/02/04.
- Salinity Monitoring LM 50m - DOLA 00.
- Salinity Risk LM 25m - DOLA 01.
- Topographic Contours, Statewide - DOLA 12/09/02.
- 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 likely to be at variance to this Principle

There is no record of conservation areas occurring within 500m proximity to the area under application. The area under application is part of the Gibbs Road Swamp System. Current landuse of this system includes nature conservation. The area under application does not form the part of the Gibbs Road Swamp System that

is proposed for nature conservation (DEH 2000).

Methodology DEH (2000)
GIS Databases:
- CALM Managed Lands and Water - CALM 01/08/04
- System 6 Conservation Reserves - DEP 06/95
- System 1 to 5 and 7 to 12 Areas - DEP 06/95
- Bushforever - MFP 07/01

(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**
The area under application occurs in the City of Armadale Groundwater Subarea. It is also close to the top of the Jandakot groundwater mound (unconfined aquifer) and therefore may constitute a significant recharge area (DEH 2000).
Given the small size of the area, it is unlikely that the clearing as proposed will significantly compromise the quality of either the surface water or groundwater.

Methodology DEH (2000)
GIS Databases:
- PWDSA Protection Zones - DOE 07/01/04.
- Groundwater Subareas - WRC 10/10/00
- Evaporation Isopleths - BOM 09/98.
- Isohyets - BOM 09/98.
- Groundwater Salinity, Statewide - 22/02/00.
- Hydrography, linear - DOE 01/02/04.
- Topographic Contours, Statewide - DOLA 12/09/02.
- Hydrographic Catchments, Sub-catchments - DOE 01/07/03

(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**
The area under application occurs in a floodway. However, given the small size of the area to be cleared, it is unlikely that the clearing as proposed will exacerbate the extent or duration of flooding.

Methodology GIS Databases:
- Evaporation Isopleths - BOM 09/98.
- Isohyets - BOM 09/98.
- Hydrography, linear - DOE 01/02/04.
- Topographic Contours, Statewide - DOLA 12/09/02.
- FMD 100 Year ARI Flood Level (mAHD)

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

Comments
The area under application is registered on the Interim Roster of Aboriginal Sites of Significance as the Wungong Brook Site, and there is also a Permanent Roster site (the Southern River Site) 270m to the north of the area under application.

The applicant, Doreen Gerovich, has lodged an application for a licence to extract groundwater sufficient for the irrigation of 0.08ha of vegetables, 1.2ha of pasture and for watering of 45 head of stock. A license for the extraction of water from the superficial aquifer is in force (GWL000158499 (001)).

The area under application occurs within the Combined Metro Native Title Claim (ref. WAG.0142_98). The Title area is 9063 square kilometres and was registered on 11/12/97. However, the land parcel is freehold land and therefore the clearing does not constitute a future act.

The Water and Rivers Commission is contracting the ongoing monitoring of the macroinvertebrate assemblages at Gibbs Road Swamp to determine if groundwater abstraction is impacting on the ecological values of the site (McGuire and Davis 1999).

Methodology McGuire, M. & Davis, J. (1999)
GIS Database:
- Native Title Claims DLI 19/12/04
- Aboriginal Sites of Significance DIA 04/07/02
- WRL, Properties, Groundwater - WRC (current) Properties

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Fence Line Maintenance	Mechanical Removal	0.02	Grant	Assessable criteria have been addressed and no objections were raised. The area under application has historically been disturbed by livestock traffic along the existing fenceline. The clearing as proposed will not compromise the attributes addressed in this assessment. The assessing officer therefore recommends that the permit should be granted.

5. References

- ANCA (1996) A Directory of Important Wetlands in Australia. Second Edition. Australian Nature Conservation Agency, Canberra
- Department of Environment and Heritage (DEH), Australian Government. Compiled by Roger P. Jaensch in 1992. Minor revision by Romeny J. Lynch and WADCALM staff in 1995 and Sue Elscot in 2000. A Directory of Important Wetlands in Australia. Gibbs Road Swamp System
- 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 (1999) Review of the Environmental Protection (Swan Coastal Plains Lakes) Policy 1992. Environmental Protection Authority.
- Hedde, 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, BJ (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- McGuire, M. and Davis, J. (1999). Biomonitoring of Selected Jandakot Wetlands (Macroinvertebrates) for the Jandakot Groundwater Scheme Stage 2: Public Environmental Review, Final Report (1996-1999). Prepared for the Water and Rivers Commission, East Perth by Aquatic Ecosystems Research, Murdoch University, Murdoch.
- 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)