

A number of options are available to landholders to help protect and manage native vegetation on their properties and I enclose a copy of the Biodiversity Incentives Program booklet for your information. Your regional natural resources management officer may also provide you with advice about possible options to manage your land.

I recommend that you discuss any safety concerns regarding access to the water course with the Catholic Education Office Of WA. The site may also be used in an educational capacity covering such issues as sustainable riparian, native vegetation, weed management and issues relating to water quality.

If you have any queries regarding this decision, please do not hesitate to contact the Department's Swan Goldfields Agricultural Region on 6250 8000.

Yours sincerely



D Carew-Hopkins
A/CHIEF EXECUTIVE OFFICER

22 September 2005

att.



1. Application details

1.1. Permit application details

Permit application No.: 571/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: The St Brigids Convent of Mercy (Perth) Inc

1.3. Property details

Property: LOT 52 ON DIAGRAM 77203
LOT 153 ON DIAGRAM 87382
Local Government Area: Shire Of Kalamunda
Colloquial name: Lesmurdie Rd Lot 153 on Diagram 87382

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.5		Mechanical Removal	Miscellaneous

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 2003: Medium forest; jarrah & marri on laterite with blackbutt (Eucalyptus patens) in valleys, swampy bottom lands with bullich (Eucalyptus megacarpa) and Agonis flexuosa (Hopkins et al. 2001).	The area under application is 0.5ha within a region classified as a resource enhancement wetland. The vegetation consists of a dominance of Acacia species with a well established Eucalypt canopy along the local area of the Lesmurdie Brook with vegetation extending up steep banks of the creek, more so on the western aspect than the eastern side. Evidence of native vegetation regeneration was present. Weed species have invaded the creek bed and extend up the side banks (site visit 29/07/05).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Information pertaining to the vegetation to be cleared description was obtained from a site visit (29/7/05), and the following GIS databases; Wetland classification and Geomorphic wetlands - Swan Coastal Plain - DOE 15/09/04, Swan Coastal Plain North 1m Orthomosaic - DLI 01/04

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 area under application has a well-established canopy with acacia species dominating the understorey (site visit 29/07/05). Weed species are common along the creek banks interspersed with evidence of native vegetation regeneration. Given the amount of clearing of native vegetation in the local area, the vegetation under application is likely to have a relatively high level of biodiversity within that local area. Lesmurdie Brook also forms part of the main network of a wildlife corridor system in the local area, containing important attributes that complement a range of conservation objectives (Shire of Kalamunda 1998).

Methodology Site Visit 29/7/2005
Shire of Kalamunda (1998), Wildlife Corridor Strategy

(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 may be at variance to this Principle**
The vegetation along Lesmurdie Brook provides a wildlife corridor for fauna in the local area and is referred to as one of many focal points in the Shire of Kalamunda's Wildlife Corridor Strategy (Shire of Kalamunda 1998). Large trees in the area under application and a dense understorey may provide some protection and habitat for fauna species. During a site visit (29/07/05) evidence of rabbit activity was observed in surrounding areas. Many bird species were observed though no evidence of native mammal activity was detected in the area under application. Nevertheless, the proposed clearing may impact on fauna through loss of habitat and disturbance,

and from further fragmentation of remnant vegetation.

Methodology Site Visit 29/7/2005
Shire of Kalamunda (1998), Wildlife Corridor Strategy

(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**

No declared rare or priority flora have been identified in the area under application. Within the local area (5km radius) rare flora species are known to exist, including *Darwinia apiculata*, *Acacia anomala*, *Tetratheca* sp. *Thelmitra stellata* and Priority species *Boronia tenuis* (Priority 4), *Pithocarpa corymbulosa* (Priority 2), *Senecio leucoglossus* (Priority 4). These rare flora species are located within a different vegetation type (Darling Scarp Complex) it is therefore unlikely that the proposed clearing will impact on significant flora.

Methodology GIS databases:-
-Declared Rare and Priority Flora List - CALM 13/08/03.

(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 are no records of Threatened Ecological Communities (TEC) in the area under application or within 3km of the proposed clearing.

Methodology GIS databases:-
-Threatened Ecological Communities

(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 State Government is committed to the National Objectives Targets for Biodiversity Conservation 2001-2005 (AGPS 2001) 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).

Vegetation complexes identified in the areas under application for the IBRA bioregion (Jarrah Forrest) and vegetation complexes (Beard (Hopkins et al. 2001), Heddle (et al 2001) and Mattiske (Consulting 1998)) are above this 30% representation. Nevertheless, remnant vegetation in the local area has been subject to some clearing, leaving the area under application as a significant remnant and significant corridor of remnant vegetation.

Methodology AGPS 2001
Department of Natural Resources and Environment 2002; EPA 2000
Hopkins et al. (2001)
GIS databases:
- Pre-European Vegetation - DA 01/01
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Heddle Vegetation Complexes - DEP 21/06/95.
- Mattiske Vegetation - CALM 24/03/98

(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 majority of the area under application is mapped as a Resource Enhancement Wetland (REW). REWs are priority wetlands, which may have been partially modified but still support substantial ecological attributes and functions. The Water and Rivers Commissions ultimate objective for these wetlands is for management, restoration and protection towards improving their conservation value.

Lesmurdie Brook runs through the centre of the area proposed to be cleared and the vegetation applied to be cleared is established, remnant riparian vegetation on the banks of the brook. The brook runs between St Brigid's boarding houses and the school oval. The proponents intention is to clear the native vegetation that flanks Lesmurdie Brook pipe the brook and fill the area in, level with and extending the adjacent playing oval.

The riparian vegetation under application is well established on the western bank (boarding house side) with a few native species evident on the east bank (playing field side). Some native trees have been planted on the top of the eastern bank at the level of the oval.

Clear running waters were observed in the Brook during a site visit (29/07/05) with no signs of sedimentation or

other run-off pollution.

Watercourses and wetlands within the Shire of Kalamunda constitute the main network or 'skeleton' of the wildlife corridor system (Shire of Kalamunda 1998). These ecosystems contain important environmental attributes that compliment a range of conservation objectives and potentially accommodate multiple uses related to water management (Shire of Kalamunda 1998).

Methodology Site Visit 29/7/2005
Shire of Kalamunda (1998), Wildlife Corridor Strategy
GIS databases:-
- Hydrography, linear - DOE 01/02/04
- Geomorphic wetlands (Mgmt Categories) - Swan Coastal Plain - DOE 15/09/04.

(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**
Acid sulfate soil risk map shows no known risk of acid sulfate soils in the proposed area for assessment (class 3). A site visit to the area under application (0.5ha) observed steep vegetated banks along Lesmurdie Brook with a slight decrease in elevation towards the north east. Given the steepness of the creek banks removal of native vegetation in the area under application may cause appreciable land degradation.

Methodology Site Visit 29/7/2005
GIS databases:-
- Acid Sulphate Soil risk map, SCP DOE 01/02/04.
- Soils, Statewide - DA 11/99
- Topographic Contours, Statewide - DOLA 12/09/02.

(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 Greenmount State Forest, Kalamunda National Park, an un-named Nature Reserve, and Lesmurdie Falls National Park all fall within the local area (5km radius) of the area under application with Lesmurdie Falls National Park being the closest (approximately 1km). Clearing as proposed will increase fragmentation of remnant vegetation in an otherwise built up local area, and reduce vegetated corridors, potentially impacting on the environmental values of surrounding conservation areas.

Methodology GIS databases:-
CALM Managed Lands and Waters - CALM 1/06/04

(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 may be at variance to this Principle**
The area under application is in the SwanAvon-Canning River catchment area. The area subject to the proposal has an annual rainfall of 900mm with regional groundwater salinity at this site ranging between 500 and 1000mg/L. The hydrography in and around the area under application is designated as a minor perennial watercourse. This healthy waterway has a stable channel, which is supported and maintained by remnant riparian vegetation. This vegetation has a number of roles including habitat, holding the banks in place (reducing erosion), filtering material washed from the catchment and slowing water flow (Statewide Waterways Strategy 2005). Given the steep banks of the area under application, and the proposed clearing of remnant vegetation, the clearing as proposed may cause deterioration in the quality of water in Lesmurdie Brook.

The proponents intention is to pipe the brook and fill the area in - level with the existing oval on the eastern side of the brook. Piping the brook will alter the course and velocity of the surface water, which is likely to cause deterioration in the quality of the surface water locally and downstream.

Methodology Site Visit 29/7/2005
Statewide Waterways Strategy (draft) 2005
GIS databases:
- Groundwater Salinity, Statewide - 22/02/00.
- Hydrography, linear - DOE 01/02/04.
- Hydrographic Catchments, Sub-catchments - DOE 01/07/03
- Rainfall, Mean Annual

(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 (0.5ha) is low lying with a slight decrease in elevation towards the north east. Removal of the vegetation in the area of application may increase water logging in the area. However given the relatively small size of the area under application and the remaining vegetation in the immediate surrounding area, clearing is unlikely to cause or exacerbate the incidence of flooding.

Methodology GIS databases:-

- Hydrography, linear - DOE 01/02/04.
- Topographic Contours, Statewide - DOLA 12/09/02.

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

Comments

The proponent submitted a request to the Shire of Kalamunda to pipe and infill the local area of Lesmurdie Brook. The Shire requested advice from the DoE. The DoE advised the Shire (26 March 2004) that Lesmurdie Brook is classified as a Resource Enhancement Wetland (REW). REW's are wetlands which may have been partially modified but still support substantial ecological attributes and functions. The ultimate objective is for management, restoration and protection towards improving their conservation value. These wetlands have the potential to be restored to Conservation Category. This can be achieved by restoring wetland structure, function and biodiversity.

The DoE does not support clearing of native vegetation in REW's.

The Shire of Kalamunda refused St Brigids application (2004) to pipe a 143m section of Lesmurdie Brook on the basis that the proposal is contrary to the Shire's Wildlife Corridor Strategy (Shire of Kalamunda 1998).

Methodology

- Shire of Kalamunda Submission
- Shire of Kalamunda (1998), Wildlife Corridor Strategy
- Water Rivers Commission - DoE Response

4. Assessor's recommendations

Purpose	Method Applied	area (ha)/ trees	Decision	Comment / recommendation
Miscellaneous	Mechanical Removal	0.5	Refuse	The principles have been assessed and the clearing as proposed may be at variance to Principles a, b, f, g, h and i. The vegetation under application is an important corridor of remnant, riparian vegetation that has retained a high level of biodiversity, and provides potential habitat for indigenous fauna. The vegetation covers the banks of Lesmurdie Brook, which remains in a relatively pristine condition. Clearing of this vegetation has unacceptable environmental consequences on the bed and banks of the brook locally and downstream. Furthermore, the clearing is contrary to the Shire of Kalamunda's Wildlife Corridor Strategy. Therefore, the assessing officer recommends that the CEO refuse to issue a permit.

5. References

- AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.
- 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.
- 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.
- Shire of Kalamunda (1998), Wildlife Corridor Strategy, Prepared by the Eastern Metropolitan Regional Council Environmental Services in Association with the Shire of Kalamunda
- Statewide Waterways Strategy (draft) 2005, Managing Our Waterways future, Department of Environment

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)