



1. Application details

1.1. Permit application details

Permit application No.: 6/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Gordon & Jodie Thomson

1.3. Property details

Property: LOT 407 ON PLAN 22032

Local Government Area:

Colloquial name: Swan Location 1373

1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|--------------------|-----------|--------------------|---------------------|
| 8.5 | | Mechanical Removal | Horticulture |

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:1949: Low woodland; banksia on low sandhills, swamps in swales with tea-tree and paperbark (Hopkins et al 2001, Shepherd et al 2001). | The area under notice is on the Swan Coastal Plain, approximately 15 km north east of the town of Guilderton. Most of the property is dominated by Banksia attenuata, Banksia menziesii with Eucalyptus todtiana and Nuytsia floribunda over an understorey of Xanthorrhoea, Grevillea/Hakea, Macrozamia, wollybush and Calothamnus (Site visit 10/12/2004). | Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994) | Observed during site visit 10/12/2004: Vegetation structure intact - upper storey species present, although understorey appears sparse in places. There are obvious indications that a fire has been through the property within the last 2 years. Understorey vegetation has been effected, although it is currently in the process of regenerating. |
| Hedde vegetation complex - Karrakatta Complex - North: Predominantly open forest of Eucalyptus marginata - Eucalyptus calophylla and woodland of Eucalyptus marginata - Banksia species. Found on aeolian deposits of the Swan Coastal Plain. (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 vegetation under application has been previously burnt. Subsequently, weeds have invaded some areas, and although infestation is still at a relatively low level, some areas of the vegetation under application remain in a degraded condition. The local area has undergone past clearing activities, including to the immediate north and south, south east of the property. If this proposal is granted, intact remnant vegetation will remain in a long broad strip to the north-east of the area under application and to the west and south-west of the area under application. Therefore the area under application is not likely to represent higher biodiversity than other remnant vegetation in the local area. Furthermore, a condition of this permit of revegetating the east portion of the property will ensure connectivity, and improved local biodiversity, between the long broad strip of remnant vegetation to the north-east of the area under application and the remnant vegetation to the east of the property.

Methodology Site inspections (22/04/04 and 10/12/04).
CALM (2004) (DoE Trim No.ED472)

(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

CALM (2004) indicates that Priority Four fauna: Quenda (*Isoodon obesulus fusciventer*) has been recorded in the local area (10 km radius of the property). The vegetation to the west of the area under application is in good condition and contiguous with other remnant vegetation. Therefore, while clearing as proposed will reduce the potential habitat for this species, it is not likely to impact significantly on quenda populations (pers. comm. Peter Mawson CALM 2004).

Methodology CALM (2004) (DoE Trim No.ED472)

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

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

No Declared Rare Flora species have been identified within 8 km of the area under application. CALM's Rare Flora Database indicates that there are 3 known Priority Flora populations located in the local area (defined as a 10 km radius of the proposal)(CALM 2004). However no populations occur within the same vegetation type as the area under application.

CALM's Herbarium Specimen Collection Database indicates that there are 8 specimens of Priority flora collected in the local area (CALM 2004). These include 3 specimens of *Grevillea evanescens* the Priority 3 species, which occurs on the same vegetation type as the area under application. The vegetation in the area under application has been burnt and remains in a degraded condition. While this species may be present in the area under application, it is likely to be in the remaining, local, intact vegetation and therefore, clearing as proposed is not likely to compromise the conservation of this species.

Methodology CALM (2004) (DoE Trim No.ED472)
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 significant ecological community.

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

CALM's Threatened Ecological Community (TEC) Database indicated that there are 9 known occurrences of the Threatened Ecological Community SCP 26a in the local area (CALM 2004). TEC SCP26a is described as *Melaleuca huegelii* - *M. acerosa* (currently *M. systema*) shrublands on limestone ridges (Category of Threat: Endangered).

These TEC occurrences are located in State Forest 65, south west of the property, and do not occur within the same vegetation type as the proposed clearing (CALM 2004).

Methodology CALM (2004) (DoE Trim No.ED472)

(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 vegetation under application is identified as Beard vegetation association 1949 and Heddle Complex Karakatta Complex North (Hopkins et al 2001, Heddle et al. 1980).

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation 2001-2005 (AGPS, 2001) which recognises that the retention of 30% or more of the pre-European extent of each ecological community is an appropriate target. This is consistent with targets recommended in EPA Position Statement No 2 (EPA, 2000). In relation to this application, the Beard vegetation association is below this 30% minimum (25.6%), with the Heddle vegetation complex above this minimum (36.9%). Beard's study (Hopkins et al 2001) is significantly broader and more dated than the more recent and detailed Heddle study (Heddle et al. 1980). In this instance, if the more comprehensive Heddle vegetation complexes are used to the exclusion of Beard's dated vegetation associations, the clearing would not be at variance to this Principle.

| | Pre-European area (ha) | Current extent (ha) | Remaining %* | Conservation status** | % in reserves/CALM-managed land |
|--------------------------------|------------------------|---------------------|--------------|-----------------------|---------------------------------|
| IBRA Bioregion – | | | | | |
| Swan Coastal Plain | 1,529,235 | 657,450 | 43% | Depleted | |
| Shire - Gingin | 315,560 | 177,688 | 56.3% | Least concern | |
| Beard vegetation association – | | | | | |
| 1949 | 132,958 | 34,012 | 25.6% | Vulnerable | 24.4% |
| Heddle vegetation complex – | | | | | |
| Karakatta Complex North | 25,579 | 9,444 | 36.9% | Depleted | 0.2% |

* (Shepherd et al. 2001)

** (Department of Natural Resources and Environment 2002)

Methodology GIS Database - Gingin 1m Orthomosaic - DLI 03
Shepherd et al (2001)
Heddle et al (1980)
AGPS (2001)
EPA (2000)

(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

No watercourses or wetlands are present on Lot 407 Cowalla Road. A Conservation Category Wetland and EEP Lake is located >800 metres to the east of the proposed clearing. It is unlikely that the clearing as proposed, is at variance to this Principle.

Methodology GIS Database - Geomorphic Wetlands (Mgt Categories) - Swan Coastal Plain DoE 21/10/04

(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

DAWA (2004) advice indicates that the proposed clearing of the 8.5 hectare area applied to clear within Lot 407 is not likely to cause appreciable on site and off site land degradation.

Methodology DAWA (2004) (DoE Trim No. ND 379)

(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

A number of conservation reserves including the Gngangara-Moore River State Forest, Yeal Nature Reserve, Moore Nature Reserve and the Gingin Stock Route Nature Reserve are located within the regional area >5 km from the area under application. The clearing is therefore not likely to impact on these conservation areas

Methodology GIS Databases:
- Gingin 1m Orthomosaic - DLI 03
- CALM Managed Lands and Waters - CALM 01/08/04

(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 is not likely to be at variance to this Principle

The property slopes southeast from 105 metres to 55 metres toward Cowalla Road, with water flow draining to the Moore River. Rainfall is 800 mm and evaporation is 2000mm.

The proposed clearing will increase recharge to groundwater, however this is considered unlikely to cause any impact on dryland salinisation. Agricultural activities may lead to minor nutrient contamination of groundwater.

The proposed clearing is not expected to adversely impact on the groundwater source on-site or off-site. (J de Silva Hydrogeologist DOE 2004).

Methodology (Hydrogeologist advice DoE 2004).
GIS databases
- Evaporation Isopleths - BOM 09/98
- Isohyets - BOM 09/98
- Hydrography, linear - DOE 01/02/04.

(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 likely to be at variance to this Principle

Average rainfall is recorded at 800mm and evaporation 2000mm in the local area. Topography for the area under application extends from approximately 85m to 100m. Given the distance to the surface expression of water (>800m) it is unlikely that the clearing as proposed will cause or exacerbate the incidence of flooding.

Methodology GIS Database
- Hydrography, Linear - DoE 01/02/04
- Evaporation Isopleths - BOM 09/98.

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

Comments

1. Submission received from Shire of Gingin outlined that there was no objection to the clearing proposal subject to formal approval being sought and obtained for irrigated horticulture.
2. Submission from Conservation Council of WA: issues of DRF, vegetation representation and EPA Position Statement No 2, wetland impacts and land degradation issues addressed in Principles c, e, f and g respectively.
3. Proposal referred to the EPA 5 May 2004 by the Commissioner of Soil and Land Conservation prior to the amendments to the Environmental Protection Act 1986. Letter subsequently sent (20 August 2004) to proponent advising them of the change in legislation and the requirement to submit a clearing application.

Methodology

1. Submission from Shire of Gingin (TRIM No. NI833)
2. Submission from CCWA (TRIM No. ND405)
3. Letter from EPA to proponent (TRIM No. ED 502)

4. Assessor's recommendations

| Purpose | Method | Applied area (ha)/ trees | Decision | Comment / recommendation |
|--------------|--------------------|--------------------------|--------------|--|
| Horticulture | Mechanical Removal | 8.5 | Grant | <p>The assessable criteria have been addressed and the proposal is not at variance to Principle (f) and not likely to be at variance to the remaining Principles.</p> <p>The assessing officer therefore recommends that the permit is granted. The proponent has also agreed to the following permit conditions:</p> <ol style="list-style-type: none"> 1. The permit holder shall revegetate the area cross hatched red. The revegetation shall be established and maintained to an average planting density of 1000 plants per hectare. The species shall consist of overstorey, midstorey and understorey species that are native to the area. Seed shall be sourced from within a 10km radius of the property. 2. The Permit Holder shall ensure that livestock shall be excluded from the area cross-hatched red by means of a stockproof fence and shall not cause or permit stock to enter or remain within the area. 3. The Permit Holder shall selectively remove or kill all plant species that are not native vegetation within the area cross- hatched red on attached Plan 6/1 during the months of June and July every year. <p>The proponent has also agreed that the permit be granted for a period of five years.</p> |

5. References

AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.

CALM Land clearing proposal advice (2004). Advice to Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia (DAWA). Department of Conservation and Land Management, Western Australia. DoE TRIM ref ED472.

DAWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref CEO1390/04.

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.

EPA (2003) Guidance for the Assessment of Environmental Factors -level of assessment of proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region. Report by the EPA under the Environmental Protection Act 1986. No 10 WA.

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.

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.