Department of Environment and Conservation

# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

**Permit application No.:** 1182/1
**Permit type:** Area Permit

### 1.2. Proponent details

**Proponent's name:** MR Wayne Colin Wright

### 1.3. Property details

**Property:** LOT 23 ON PLAN 23497 (House No. 111 RESERVE MUCHEA 6501)
**Local Government Area:** Shire Of Chittering
**Colloquial name:**

### 1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|---|---|---|---|
| 3.7 | | 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 association 4: medium woodland; marri and wandoo (Shepherd et al 2001, Hopkins et al 2001).<br><br>Heddle vegetation complex - Raegen Complex: vegetation ranges from low open woodland of Banksia species, Eucalyptus todtiana to closed heath depending on depth to soil.<br><br>Heddle vegetation complex - Coonambidgee Complex: vegetation ranges from a low open forest and woodland of E.todtiana, Banksia attenuata, B. menziesii, B. illicifolia with localised admixtures of B. prionotes to an open woodland of E. calophylla, Banksia species.<br>(Heddle et al 1980) | The proposed clearing consists of a 3.7ha area at the rear of a 39ha property. Vegetation is sparse with little to no understorey. During a site visit to the area, DAFWA (2006) indicated that the area under application is parkland cleared with occasional Nuytsia floribunda and Banksia sp with no natural understorey remaining. | Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994) | Clearing description and vegetation condition derived from information provided by advice from DAFWA (2006). |

## 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 native vegetation applied to be cleared comprises of a low level of biological diversity. Vegetation is sparse with little to no understorey. During a site visit to the area, DAFWA (2006) have indicated that the area under application is parkland cleared with occasional Nuytsia floribunda and Banksia sp with no natural understorey remaining. Additionally the area adjacent to the site is considered to be in better condition and comprises of a higher level of biodiversity.

Therefore the proposed clearing is considered not likely to be at variance to this principle

**Methodology**

DAFWA (2006)
GIS Databases:
- Swan Coastal Plain North 40cm Orthomosaic - DLI 05

**(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**

The condition of the vegetation under application is in very degraded condition with little to no understorey (DAFWA 2006). It is considered that the eastern portion of the property, which consists of dense remnant vegetation, would provide more significant habitat for indigenous fauna than the area under application, Therefore given the degraded nature of the vegetation under application, the clearing as proposed is not likely to be significant habitat for indigenous fauna.

**Methodology**

DAFWA (2006)
GIS Databases:
- Swan Coastal Plain North 40cm Orthomosaic - DLI 05

**(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**

There are no Declared Rare and Priority Flora recorded in the areas under application. One Declared Rare Flora (Grevillea curviloba subsp incurve) and two Priority 3 Flora species (Acacia drummondii subsp affinis and Verticordia serrata var. linearis) are known to occur within a 5km radius of the proposed clearing.

Verticordia serrata var. linearis is the only species that occurs on the same vegetation type as the area under application. However, it is considered that due to the degraded nature of the area under application and the lack of understorey species, it is considered unlikely that any species of conservation significance would be present. Therefore the proposed clearing is considered not likely to be at variance to this Principle.

**Methodology**

GIS Databases:
- Declared Rare and Priority Species List - CALM 01/07/05
- Heddle Vegetation Complexes - DEP 21/06/95

**(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 known occurrences of Threatened Ecological Communities (TECs) within the area under application or within 5km of the subject area. The lack of understorey species within the proposed clearing, would indicate that there is unlikely to be a TEC within the area under application.

**Methodology**

GIS Databases:
- Threatened Ecological Communities - CALM 12/04/05
- Swan Coastal Plain North 40cm Orthomosaic - DLI 05

**(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 can be mapped as a component of Beard Vegetation Association 4 of which there is approximately 23.5% (292,993ha) remaining. This vegetation association is considered to have a vulnerable conservation status (Department of Natural Resources and Environment 2001). The vegetation has also been mapped as a component of Heddle Vegetation Complexes Coonambidgee with 45.1% (2,830ha) remaining and Reagan Complex with 38% (3,455ha) remaining (Heddle et al 2001). Both of these vegetation complexes are considered to have a conservation status of depleted (Department of Natural Resources and Environment 2001).

| reserves/CALM | Pre-European (ha)* | Current extent (ha)* | Remaining (%)* | Conservation** status | % In managed land |
|---|---|---|---|---|---|
| IBRA Bioregions | | | | | |
| Swan Coastal Plain | 498 297 | 626 512 | 41.8 | Depleted | |
| Shire of Chittering | 123,502 | 48,828 | 39.5 | Depleted | |
| Vegetation type: | | | | | |
| Beard: Unit 4 | 1056783.500 | 248065.211 | 23.5 | Vulnerable | 10.9 |
| Heddle Complex | | | | | |
| Reagan | 9,097 | 3,455 | 38.0 | Depleted | 1.9 |
| Coonambidgee | 6,272 | 2,830 | 45.1 | Depleted | 9.4 |

* (Shepherd et al. 2001)
** (Department of Natural Resources and Environment 2002)
*** Within the Intensive Landuse Zone

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents a clearance of ecological communities with an extent below 30% of that present pre-European settlement (Department of Natural Resources and Environment 2002, EPA 2000

Given the degraded condition of the vegetation, specifically the lack of understorey species, the area applied to be cleared is considered unlikely to be representative of the vegetation communities under application, and thus unlikely to be significant as a remnant of native vegetation in an area that has been extensively cleared.

**Methodology** GIS Databases:
- 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**
There are no wetlands or watercourses within the area under application. A resource enhancement and multiple use wetland are located approximately 90m south-west and 250m south-west of the area under application, respectively. Aerial photography of this wetland area shows little to no native vegetation remaining, with the area appearing to be currently utilised for grazing purposes.

Given the relatively small area (3.7ha) and degraded condition of the vegetation applied to be cleared, and the degraded nature of the nearby wetland areas, it is considered unlikely the proposed clearing would impact on any watercourses or wetlands. Therefore the proposed clearing is not considered likely to be at variance to this principle.

**Methodology** GIS Databases:
- Geomorphic wetlands (Mgmt Categories) - Swan Coastal Plain - DOE 15/09/04
- Hydrography, linear - DOE 01/02/04
- EPP, Areas - DEP 06/95
- EPP, Lakes - DEP 28/07/03

**(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**
DAFWA (2006) identified the soils associated with this application as Coonambidgee 2 subsystem (70% of the applied area) and Coonambidgee 1 subsystems (30% of the applied area). These Subsystems are described as gently sloping fringe from the Dandaragan plateau to the Pinjarra Plain, with Coonambidgee 2 classified as pale yellow medium to course sands weakly clayey at approximately 1 metre, and Coonambidgee 1 classified as deep mainly white medium to course sand.

DAFWA (2006) considered that the degradation risks associated with these soil types, (wind and water erosion, salinity, and waterlogging) were minimal. A small portion of the Coonambidgee 1 subsystem is recognised as having a risk of eutrophication, although it is considered that the proposed clearing and landuse will not exacerbate this issue.

Acid Sulphate Soil (ASS) risk mapping identifies the area as having no known risk of ASS disturbance at this site.

The proposed clearing is therefore considered not likely to be at variance to this Principle.

**Methodology** DAFWA (2006)
GIS Databases
- Acid Sulphate Soils Risk, Swan Coastal Plain - DEC

**(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**
The Barracca Nature Reserve and the Chandala Nature Reserve are located within a 5km radius north of the proposed clearing. It is unlikely that the area under application would provide buffering or ecological linkage qualities due to the degraded nature of the area under application.

It is considered that the vegetation on the remainder of the property could potentially have these qualities as it is

in better condition and is connected to neighbouring properties which are also well vegetated.

**Methodology** GIS Databases:
- CALM Managed Lands and Waters - CALM 01/07/05
- Swan Coastal Plain North 40cm Orthomosaic - DLI 05

### (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**

Lot 23 is not located within a Public Drinking Water Source Area (PDWSA) or an EPP Groundwater Protection Area.

Vegetation within the area under application has been identified as parkland cleared, containing a relatively sparse scattering of Banksia sp. and Nuytsia floribunda, with little or no understorey (DAFWA 2006). DAFWA (2006) have advised that the proposed clearing is unlikely to result in the increase of salinity or eutrophication issues. Any increased water runoff will be accommodated by the existing drainage network to the north-east of the proposed clearing.

Due to the degraded nature and limited area of vegetation under application, it is considered unlikely that the proposed clearing will have an appreciable impact on surface or groundwater water quality.

**Methodology** DAFWA 2006
GIS Databases:
- Hydrography, Linear - DOE 01/02/04
- Geomorhpic Wetlands (Mgmt Categories), Swan Coastal Plain - DOE 15/09/04
- Public Drinking Water Source Areas (PDWSAs) - DOE 09/08/05
- EPP, Areas - DEP 06/95
- Swan Coastal Plain North 40cm Orthomosaic - DLI 05

### (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 vegetation under application comprises a relatively small area (3.7ha) of scattered vegetation, located approximately 90 metres north-east of a Resource Enhancement Wetland and an associated drainage network.

Based of the degraded condition of the vegetation under application, and the limited scale on which clearing is proposed, it is considered unlikely that the clearing would have an impact on peak flood height or duration, or exacerbate the incidence of localised flooding. Therefore proposed clearing is not considered likely to be at variance to this principle.

**Methodology** GIS Databases:
- Swan Coastal Plain North 40cm Orthomosaic - DLI 05
- Geomorhpic Wetlands (Mgmt Categories), Swan Coastal Plain - DOE 15/09/04

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

**Comments**

A direct interest letter from the Shire of Chittering confirmed that applicant has a current excavation licence for the subject area for a period of five years from 8 December 2004 (DEC TRIM ref: DOC 1146).

The Shire of Chittering had no objection to the Clearing Application; however they did request that for every tree that was removed ten trees would be planted in its place. In response, the proponent informed the Department that the Chittering Landcare Group planted 5000 native seedlings on the South West corner of his property in May of 2006 (TRIM DOC 8168 and DOC 8169). This was communicated in writing to the Shire which considered that this addressed its requirements.

**Methodology** Shire of Chittering - Decision on application for council's planning consent and excavation licence (DEC TRIM ref: DOC 1146)

## 4. Assessor's comments

| Purpose | Method | Applied area (ha)/ trees | Comment |
|---|---|---|---|
| Extractive Industry | Mechanical Removal | 3.7 | The assessing officer has completed the assessment of the proposal and deemed that the clearing is not likely to be at variance to any of the clearing principles.<br>The assessing officer recommends that a clearing permit be granted. |

## 5. References

DAFWA (2006) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DEC TRIM ref: DOC 2731.

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., 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) |