Department of Environment and Conservation

# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

**Permit application No.:** 705/1

**Permit type:** Area Permit

### 1.2. Proponent details

**Proponent's name:** **Co-operative Bulk Handling Ltd**

### 1.3. Property details

**Property:** LOT 681 ON PLAN 43208 ( BEACON 6472)

**Local Government Area:** Shire Of Mount Marshall

**Colloquial name:** Beacon Lot 681 Diver Street

### 1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|---|---|---|---|
| 2 | | Mechanical Removal | Building or Structure |

## 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 141: Medium woodland; York gum, salmon gum and gimlet (Hopkins et al. 2001, Shepherd et al. 2001). | The vegetation to be cleared is predominantly shrub level vegetation consisting of Acacia sp., Casuarina sp. and understorey vegetation. The understorey vegetation, where it exists, is in good condition albeit sparse. There are also some patches of mallee eucalypts and some isolated eucalyptus trees, possibly salmon gums. There are areas that have been disturbed through human activity such as soil extraction and motor vehicles use and these areas have a greater infestation of annual weed species (Site Visit - 19.10.2005). | Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994) | The condition of the native vegetation was assessed during a Site Visit (19/10/2005). It is worth noting that approximately 40% of the native vegetation under application, mainly north of the existing bins, is in very good condition with relatively undisturbed and intact understorey species occupying that area. |

## 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 consists predominantly of shrub level vegetation with Acacia sp. and Casuarina sp. being the most dominant. There are also isolated tall eucalypts, possibly salmon gums, and some mallee eucalypts. Portions of the area under application contain sparse understorey vegetation that is in good condition and to a lesser extent native vegetation that is in very good condition with relatively undisturbed and intact understorey species. There are also areas that have been disturbed through human activity such as soil extraction and motor vehicle use, which have a greater infestation of annual weed species (Site Visit 2005).

There are five conservation reserves within a 15km radius with a high level of biodiversity. However, given that the area under application is surrounded by extensively cleared agricultural land, the clearing is likely to impact on the biodiversity of the remaining vegetation in the local area. The proposed clearing, therefore, may be at variance to this Principle.

**Methodology** Site Visit (2005)

**(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**

CALM (2006) advises that the following Specially Protected and Priority fauna are known or likely to occur in the local area (within a 15km radius):
- Numbat (Myrmecobius fasciatus)
- Malleefowl (Leipoa ocellate)
- Bilby (Macrotis lagotis)
- Crested Bellbird (southern) (Oreoica gutteralis gutteralis)

As the surrounding areas have been extensively cleared, small fragmented pockets of remnant vegetation in the vicinity of Beacon, such as that in the area under application, represent significant habitat for local fauna populations (CALM 2006).

Records of Malleefowl in the area are relatively recent (CALM 2006). Therefore CALM has suggested that the proponent actively survey for the presence of Malleefowl mounds, before Department of Environment give further consideration to issuing a clearing permit. In addition, CALM (2006) recommends that trees (especially mature examples with hollows) be retained where possible. Thus, this proposal may be at variance to this Principle.

**Methodology**

CALM (2006) (DoE TRIM Ref NI 1307)
Site Visit (2005)

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

**Comments**

**Proposal may be at variance to this Principle**

CALM (2006) advises there are three populations of Declared Rare Flora Boronia adamsiana and five records of five species of Priority Flora within a 15km radius of the proposal. The priority species Dampiera scaevolina (Priority 1), Verticordia roei subsp.meiogona (Priority 1) and Acacia cylindrica (Priority 3) were recorded approximately 1.2km west of the notified area and within the same vegetation association.

Boronia adamsiana occurs on Beard Vegetation Type 141, which is the vegetation type within the notified area. CALM's Merredin District Nature Conservation Officer advises that it is highly likely that Boronia adamsiana, Eremophila resinosa and other rare flora species could occur on this Lot (CALM, 2006).

CALM (2006) recommends that a flora survey, undertaken at the appropriate time of year, should be conducted to determine the presence or absence of the declared rare species.

**Methodology**

CALM (2006) (DoE TRIM Ref NI 1307)
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**

CALM (2006) advises that there is no evidence to suggest that any EPBC Act listed Threatened Ecological Communities (TECs) or State listed TECs are present within the proposed clearing. There are no records of TECs within a 50km radius of the area under application with the nearest TEC located approximately 115km southwest of the area under application. Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology**

CALM (2006) (DoE TRIM Ref NI 1307)
GIS Databases:
-Threatened Ecological Community Database - CALM 15/07/03
-Environmentally Sensitive Areas - DOE 22/10/04

**(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 area under application is located within the Intensive Land-use Zone as mapped in EPA Position Statement No. 2 (EPA 2000). Significant clearing of native vegetation has already occurred in this area and any further reduction through clearing is not supported. The vegetation under application is mapped as a component of Beard Vegetation Association 141 (Hopkins et al. 2001) of which there is 37.0% (250,256ha) of the pre-European extent remaining in Western Australia (Shepherd et al. 2001). The status of this vegetation type for biodiversity conservation is 'depleted' (Department of Natural Resources and Environment 2002).

The State Government is committed to the National Objectives and 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 area under application is mapped within the Avon Wheatbelt IBRA Region of which 16.0% of native vegetation remains (Shepherd et al. 2001). CALM (2006) reports that within this Region 27.5% of the Pre-European extent of Beard Vegetation Association No. 141 is remaining with 0.5% in conservation reserves. The area under application falls within the Shire of Mt Marshall with only 10.6% (47,071ha) of the remnant vegetation remaining (Shepherd et al 2001, Hopkins et al 2001).

Given the above, this proposal is at variance to this Principle.

**Methodology** CALM (2006) (DoE TRIM Ref NI 1307)
Shepherd et al. (2001)
Hopkins et al. (2001)
Department of Natural Resources and Environment (2002)
EPA (2000)
GIS Databases:
-Pre-European Vegetation - DA 01/01
-Interim Biogeographic Regionalisation of Australia - EA 18/10/00
-EPA Position Paper No 2 Agriculture Region - DEP 12/00

**(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**
The vegetation within the area under application is not influenced by a watercourse and as such, the vegetation is not considered to be wetland dependent vegetation. Therefore, this proposal is not at variance to this Principle.

**Methodology** GIS Databases:
-Hydrography, linear - DOE 01/02/04
-Hydrographic Catchments - Catchments DOE 23/5/05

**(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 (2005) have advised that they have no objections to the clearing and advise the clearing of 8 hectares is unlikely to cause appreciable land degradation. On-site land degradation risk will be low as the area will be compacted or bituminised. The risk of soil erosion and salinity would be low (DAWA 2005).

**Methodology** DAWA (2005) (DoE TRIM Ref EI 2768)
GIS Databases:
-Salinity Mapping LM 25m - DOLA 00
-Salinity Monitoring LM 50m - DOLA 00
-Salinity Risk LM 25m - DOLA 01
-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 is not likely to be at variance to this Principle**
There are a number of conservation reserves in the local area (15km radius) including an un-named Nature Reserve (24534) approximately 2.7km south of the area under application, North Beacon Nature Reserve (22457) approximately 3.3km north, an un-named Nature Reserve (38574) approximately 9.2km east-southeast, Marindo Nature Reserve (20986) approximately 10.1km west and Mungarri Nature Reserve (17923) approximately 14.5km north-west (CALM 2006). The benchmark of 15% representation in conservation reserves (JANIS Forests Criteria 1997) has not been met for Beard Vegetation Associations 141 with only 5.8% of the current extent in secure tenure (Shepherd et al. 2001, Hopkins et al. 2001).

However, given the distances from these nature reserves the vegetation under application provides a limited role as a "stepping stone" for ecological connectivity. Given this lack of connectivity, the clearing as proposed is considered unlikely to have a significant impact on the environmental values of these surrounding conservation reserves.

**Methodology** CALM (2006) (DoE TRIM Ref NI 1307)
Shepherd et al. (2001)
Hopkins et al. (2001)
JANIS Forests Criteria (1997)

GIS Databases:
-CALM Managed Lands and Water - CALM 01/08/04
-Pre-European Vegetation - DA 01/01

**(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 soils in the area are yellow, gravely loamy sand (DAWA 2005). With an average annual rainfall of 300mm and an annual evaporation rate of 2,800mm there is likely to be little surface flow during normal seasonal rains. It is only during major rainfall events that there would be significant surface flow and the flow during these events would tend to be relatively fresh. The Job Lake Sub-Catchment within the Yilgarn Catchment of the Avon River Basin becomes a medium for the collection and transportation of major flows.

With high annual evaporation rates and low annual rainfall there is little recharge into regional groundwater. The proposed clearing of native vegetation for this proposal is unlikely to have an impact on regional groundwater considering the relatively small size of the proposal and the magnitude of the Yilgarn-Southwest Groundwater Province.

DAWA (2005) advises the increase in salinity risk associated with the clearing of 8ha would be low and not significant. Therefore, this proposal is not likely to be at variance to this Principle.

**Methodology**

DAWA (2005) (DoE TRIM Ref EI 2768)
GIS Databases:
-Evaporation Isopleths - BOM 09/98
-Isohyets - BOM 09/98
-Hydrography, linear - DOE 01/02/04
-Groundwater Provinces - WRC 98
-Hydrographic Catchments, Basins - DOE 23/03/05
-Salinity Risk LM 25m - DOLA 01
-Topographic Contours, Statewide - DOLA 12/09/02

**(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 at variance to this Principle**

With an average annual rainfall of 300mm and an annual evaporation rate of 2,800mm there is little surface flow during normal seasonal rains. It is only during major rainfall events that there is a likelihood of flooding for which the river and lake systems of the region are designed to compensate and sustain floodwaters. Given the relatively small scale of the proposed clearing, there is unlikely to be a greater risk of flooding as a result of this proposed clearing. DAWA (2005) also advises that the clearing of the native vegetation is not likely to contribute to 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

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

**Comments**

There is no other RIWI Act Licence, Works Approval or EPA Act Licence that affects the area under application.

The Shire of Mt Marshall (2005) submitted comments stating that Lot 189 Diver Street, Beacon is vested with the Shire of Mt Marshall and therefore is to be omitted from the clearing permit application. The property has since been omitted with the proposed clearing on Lot 681 only.

The Shire of Mt Marshall (2006) has no objections to the clearing of the area under application. The Shire advises "CBH will be required to seek planning approval from the Shire to undertake any development works on the cleared site".

No planning approval has been submitted to the Shire of Mt Marshall to date.

**Methodology**

Shire of Mt Marshall (2005) Submission (DoE TRIM Ref NI 291)
Shire of Mt Marshall (2006) Submission (DoE TRIM Ref ND 826)

## 4. Assessor's comments

| Purpose | Method | Applied | Comment |
|---|---|---|---|

| | | area (ha)/ trees |
|---|---|---|
| Building or Structure | Mechanical Removal | 2 |

## 5. References


CALM (2006) Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM Ref NI 307.

DAWA (2005) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM Ref EI 2768.

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.

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.

JANIS Forests Criteria (1997) Nationally agreed criteria for the establishment of a comprehensive, Adequate and Representative reserve System for Forests in Australia. A report by the Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee. Regional Forests Agreement process. Commonwealth of Australia, Canberra.

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) |