Department of Environment and Conservation

# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

**Permit application No.:** 1745/1

**Permit type:** Purpose Permit

### 1.2. Proponent details

**Proponent's name:** **Bristile Holdings Ltd**

### 1.3. Property details

**Property:** LOT 101 ON PLAN 42930 ( BYFORD 6122)

**Local Government Area:** Shire Of Serpentine-Jarrahdale

**Colloquial name:**

### 1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|---|---|---|---|
| 0.17 | | 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 |
|---|---|---|---|
| Mattiske Vegetation Complex:<br>Darling Scarp (DS) - Mosaic of open forest of *Eucalyptus marginata subsp. marginata-Corymbia calophylla*, with some admixtures with *C.haematoxylon* in the south on deeper soils adjacent to outcrops, woodland of *E.wandoo* (subhumid and semihumid zones), low woodland of *Allocasuarina huegeliana* on shallow soils over granite outcrops, closed heath of *Myrtaceae-Proteaceae species* and lithic complex on or near granite outcrops in all climate zones.<br>Forrestfield (FO) - Mosaic of open forest of *C.calophylla-E.wandoo-E.marginata subsp. elegantella* and open forest of *E.marginata*. | The proposal includes the clearing of 0.17ha of native vegetation for the construction of a fence. The vegetation under application comprises of individual *Eucalyptus spp* and *Banksia spp* and *Xanthorrhoea preissi* in a degraded to completely degraded condition.<br><br>The area under application follows the existing eastern perimeter of Bush Forever site 271 within Lot 101 and encroaches for a distance of approximately 310m along a firebreak, inside the southern portion of this Bush Forever site. The northwest portion of the applied area provides a 100m buffer to the east of the Bush Forever site and follows an existing firebreak for a distance of approximately 190m. | Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994) | The northern portion of the applied area (188m) is located adjacent to the Bush Forever site 271 and was included in the flora survey (Bennett Environmental Consulting 2006) and fauna survey (Harewood 2007) conducted on Lot 101 for clearing permit CPS 981/1. Identified flora and fauna were inferred as also likely to be present in the Bush Forever site<br>(Bennett 2006; Harewood 2007)..<br><br>The vegetation clearing description is based on a site visit conducted by DEC officers on 19 April 2007. The area to be cleared follows the existing boundary fence line and a firebreak. Disturbance to the area under application for construction of a new fence line should be minimal through the selective pruning and targeted removal of specific species. |
| Beard Vegetation Association:<br>3 - medium forest; *jarrah-marri.* | The eastern and northwest portion of the applied area will require the selective removal of the occasional *Eucalyptus spp* and *Banksia spp*, whilst the southern portion located along a firebreak will require the removal of occasional *Xanthorrhoea preissi.* The proponent should minimise clearing by the careful placement of the fencing along firebreaks and previously cleared | | |

areas. Condition of adjacent vegetation is excellent.

## 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 follows the existing eastern perimeter of Bush Forever site within Lot 101, and encroaches for approximately 310m inside the southern portion of this Bush Forever site. The vegetation under application is limited to *Eucalyptus spp, Banksia spp* and *Xanthorrhoea preissii* in a degraded to completely degraded condition.

Given that the vegetation under application (0.17ha) follows the existing boundary fence line and a firebreak in a narrow, linear section and is in a degraded to completely degraded condition, it is not considered likely to represent an area of higher biodiversity when compared to the adjacent vegetation that is in excellent condition.

**Methodology**

DEC site visit - 19/04/07
Government of Western Australia (2000)

### (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 fauna survey conducted by Harewood (2007) for CPS 981 identified a number of fauna species likely to be present within similar vegetation that is adjacent to this area under application.

During the site inspection no hollows were observed that could potentially be utilised as habitat with the trees under application not considered to be of hollow-bearing age.

With understorey being predominantly absent from the application area and vegetation limited to *Eucalyptus spp, Banksia spp*, and *Xanthorrhoea preissii* contained within a narrow, linear area, it is considered unlikely to provide suitable habitat for ground dwelling fauna.

Given the long linear nature of the proposed clearing, lack of hollows and degraded to completely degraded condition of the vegetation under application, it is not considered likely to comprise significant habitat for indigenous fauna, especially when compared to that contained in the adjacent Bush Forever site.

**Methodology**

DEC site visit - 19/04/07
Harewood (2007)
GIS Database:
SAC Bio datasets - 02/05/07

### (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**

Within the local area (5km of application) there are 7 known populations of three species of Declared Rare Flora (DRF) (*Verticordia plumosa spp, Tetraria australiensis* and *Drakaea elastica*), the closest of which *Tetraria australiensis* is located approximately 2km south of the southern area under application.

Of the identified DRF species *Tetraria australiensis* and *Drakaea elastica* are located within the same vegetation complex and soil type as the majority of the area under application. In addition there are also five known occurrences of Priority species within a 5km radius, of which *Schoenus pennisetis* is located approximately 1km west of the northern area under application.

The spring flora survey conducted by Bennett (2006) for CPS 981/1, which included the northern area under application, identified no DRF or Priority flora.

Given that the vegetation under application is limited to individual *Eucalyptus, Banksia* and *Xanthorrhoea spp* contained in previously cleared areas, it is not considered likely to include, or be necessary for the continued existence of, rare flora.

**Methodology**

DEC Site visit - 19/04/07
Bennett Environmental Consulting (2006)
GIS Databases:
Bushforever - MFP 07/01
Declared Rare and Priority Flora List - CALM 01/07/05

Mattiske Vegetation - CALM 24/3/98
Soils, Statewide - DA 11/99
SAC Bio datasets - 02/05/07

**(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 35 known occurrences of Threatened Ecological Communities (TEC) within the local area (5km) radius, of which the following are associated with the landform identified in or adjacent to the area under application:

- *Eucalyptus calophylla - E.marginata* woodlands on sandy clay soils (3b);
- *Eastern Banksia attenuata* and/or *Eucalyptus marginata* woodlands (20b); and

(Government of Western Australia 2000).

These TEC's have also been inferred within the adjacent Bush Forever site.

Although these TEC's have been found adjacent to the area under application and inferred within Bush Forever site 271 the vegetation under application is degraded to completely degraded and is limited to *Eucalyptus spp*, *Banksia spp* and *Xanthorrhoea preissii* along existing cleared areas and firebreaks. It is therefore not considered likely to comprise, or be necessary for the maintenance of a TEC.

**Methodology**

DEC site visit - 19/04/07
Government of Western Australia (2000)
GIS Databases:
Threatened Ecological Communities - CALM 12/4/05
SAC Bio datasets - 02/05/07

**(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**

Mattiske (1998) defines the vegetation under application as 'Darling Scarp' and 'Forrestfield' complexes of which there is 43.3% and 30.6% respectively of pre-European extent remaining and which are described as being of a 'depleted' and 'vulnerable' status respectively for biodiversity conservation ( Department of Natural Resources and Environment 2002).

The vegetation under application is also defined as vegetation association 3, which has a representation of 70.% of pre-European extent remaining (Shepherd et al. 20001) and which is considered to be of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment 2002). In addition the vegetation of the area under application is also within the Shire of Serpentine of which there is 58.6% of pre-European extent remaining which is considered to be of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment 2002).

Given that these vegetation types have representations above the recommended minimum level of 30%, as recognised by both the EPA and the State Government (EPA 2003; Department of Natural Resources and Environment 2002), the proposal is therefore not considered likely to be at variance with this principle.

| | Pre-European(ha) | Current (ha) | Remaining % | Conservation status*** | %in reserves |
|---|---|---|---|---|---|
| Swan Coastal Plain | 1,529,235 | 657,450 | 43% | Depleted | |
| Shire of Serpentine | 90,478 | 53.038 | 58.6% * | Least Concern | |
| Mattiske vegetation complex | | | | | |
| Darling Scarp (DS) | 291,043 | 126,045 | 43.3% | Depleted | |
| Forrestfield (FO) | 37,106 | 11,371 | 30.6% | Vulnerable | |
| Beard vegetation associations 3 | 2,661,514 | 1,863,982 | 70.0% ** | Least Concern | 26.2% |

* (Shepherd et al. 2001)
** (Adapted from: Shepherd et al. 2001)
***(Department of Natural Resources and Environment 2002)

**Methodology**

GIS Databases:
Department of Natural Resources and Environment (2002)
EPA (2003)
Mattiske Consulting (2006)
Shepherd et al (2001)

**(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 a number of Conservation Category Wetlands (CCW) located between 1km and 2km to the west of the applied area. A number of Resource Enhancement Category wetlands are also located approximately 4km to the east. The nearest watercourse is Cardup Brook, which is located approximately 100m to the south.

Given the distance to the nearest wetland, and that no wetland dependent vegetation was observed during the site visit, the proposed clearing is not considered likely to include vegetation growing in, or in association with, a watercourse or wetland.

**Methodology**

DEC site visit - 19 April 2007
GIS Databases:
EPP, Lakes - DEP 1/12/92
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC
Hydrography, linear (hierarchy) – DOE

**(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**

The soils within the area under application are described as well-drained gravely yellow or red duplex soils with sandy loam to loam topsoil which have a very low risk of land degradation including eutrophication and waterlogging (State of Western Australia 2005).

The area under application is associated with a nil risk of salinity and has a moderate to low risk of acid sulphate soils. Given that the clearing as proposed does not involve deep excavation of the soil, it is therefore not considered likely to have an impact on acid sulphate soils.

The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be wind and water erosion. The proposal is for the construction of a fence along a narrow, linear area and as there will be selective removal of *Eucalyptus spp, Banksia spp* and *Xanthorrhoea preisii*, it is not considered likely to result in appreciable wind or water erosion. It is therefore considered that the proposal is unlikely to cause appreciable land degradation.

**Methodology**

DEC site visit - 19/04/07
State of Western Australia (2005)
GIS Databases:
Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC
Salinity Mapping LM 25m - DOLA 00
Soils, Statewide - DA 11/99

**(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 Cardup Nature Reserve is located approximately 2km southwest of the applied area and the Jarrahdale State Forest is situated approximately 3.7km to the east. Given the distance to these reserves and the limited nature of the proposed clearing is not considered likely to have direct or indirect impact on the environmental values of these nearby conservation reserves.

The area under application follows the eastern perimeter of Bush Forever site 271 within Lot 101 and encroaches for a distance of approximately 310m along a firebreak, within the southern portion of this Bush Forever site. Given a portion of the proposed clearing is within the Bush Forever site, the proposed clearing may have direct or indirect impacts on this Bush Forever site.

Indirect impacts related to the proposal may include the spread or introduction of Phytophthora (dieback) and/or weed species which have the potential to threaten the environmental values of this Bush Forever site. There are serious consequences associated with the spread of such diseases and exotic species into an area reserved for conservation, including the potential local extinction of species.

Direct impacts associated with the proposal include the selective removal of the occasional *Eucalyptus, Banksia* and *Xanthorrhoea species* and potential damage to vegetation during the preparation and construction of the proposed fence line.

Given the potential direct and indirect impacts on the Bush Forever site and the removal of vegetation within a regionally significant corridor, it is therefore considered likely that the proposal in its current form may be at variance with this Principle.

The assessing officer considers that the benefits of establishing a boundary fence to keep vehicles out of the Bush Forever site will outweigh the minimal damage and loss through the selective removal, of vegetation during the construction of this fence line.

Given that there is potential for the proposed clearing to directly and indirectly impact the Bush Forever site, conditions will be placed on the permit to ensure wash down of vehicles to minimise the risk of either the introduction or spread of weed and dieback over the applied area. Conditions have also been imposed requiring weed control along the applied area.

**Methodology** DEC site visit - 19/04/07
GIS Databases:
Bushforever - MFP 07/01
CALM Managed Lands and Waters - CALM 1/07/05
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC

### (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 has a low to nil risk of salinity and a moderate to low risk of acid sulphate soils and is not located within a Public Drinking Water Source Area (PDWSA). The nearest watercourses are Beenyup Brook which is located approximately 350m to the north and Cardup Brook which is located approximately 100m to the south.

There is also a Conservation Category Wetland situated in the Bush Forever site 271, located approximately 450m to the southwest of the applied area and a Resource Enhancement Wetland which is located approximately 900m to the northeast of the area under application.

Given that the proposal includes the selective pruning and removal of *Eucalyptus, Banksia* and *Xanthorrhoea spp*, over a thin linear strip over 1.4km, it is not considered likely to cause deterioration in the quality of surface or underground water. The proposal is therefore not considered likely to be at variance to this Principle.

**Methodology** DEC site visit - 19/04/07
GIS Databases:
Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC
Hydrography, linear (hierarchy) - DOW
Public Drinking Water Source Areas (PDWSAs) - DOW
Rivers, 1M - GA 01/06/00
Salinity Risk LM 25m - DOLA 00

### (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 is located approximately 100m north of the nearest watercourse, Carnup Brook. Given that the applied area has well-drained soils and the limited amount of clearing over 1.4km, it is not considered likely that the selective removal of vegetation from site as outlined, would have an impact on peak flood height or duration.

**Methodology** DEC site visit - 19/04/07
GIS Databases:
Hydrography, linear (hierarchy) -DOW
Topographic Contours, Statewide - Dola 12/09/02

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

**Comments**

Lot 101 Nettleton Road is part of a Native Title Claim, however, since it is privately owned the Native Title has been extinguished under the Native Title Act. Therefore the clearing as proposed should not fall under the future acts process of the Native Title Act 1993.

An initial submission was received from Bush Forever advising that the clearing permit should be restricted to the vegetation outside the Bush Forever boundary and that clearing should not be undertaken unless the boundary of the Bush Forever site has been properly surveyed. The applicant has advised that the eastern boundary of the Bush Forever site has since been surveyed and the fence will follow this surveyed line to be more accurate. As the area under application is sparsely vegetated and follows a narrow, linear strip in areas that have previously been cleared, disturbance to the vegetation should be minimal through the selective pruning and removal of the occasional *Eucalyptus, Banksia* and Xanthorrhoea species. This was explained to the Bush Forever Office and they advise that they have no objection to the proposal with this reasoning.

A submission was received from the Serpentine Jarrahdale Shire advising that the southern portion of the area under application which crosses into the Bush Forever site should be realigned and a new fence be erected on cleared land to the east of the Bush Forever boundary. In addition, the northern portion under application which runs along a firebreak, is subject to clearing permit 981/1 and a development application for the realignment of an access track with the Serpentine Jarrahdale Shire. Until these issues have been addressed, the Shire is opposed to a permit being issued for fence maintenance.

**Methodology** Bush Forever (2007) DEC TRIM ref. DOC23632
Serpentine Jarrahdale Shire
GIS Database:
Native Title Claim - DL 7/11/05

## 4. Assessor's comments

| Purpose | Method | Applied area (ha)/ trees | Comment |
|---|---|---|---|
| Fence Line Maintenance | Mechanical Removal | 0.17 | The assessable criteria have been addressed, and the proposed clearing may be at variance to Principle h.<br><br>Conditions will be imposed on the permit including:<br>- Minimise the amount of native vegetation to be cleared<br>- Take steps to minimise the risk of introduction and spread of dieback and weeds.<br>- Remove or kill any weeds growing within the areas cleared under this Permit. |

## 5. References


Bennett Environmental Consulting Pty Ltd (2006) Flora and Vegetation of Lot 101 on DP 42930 Nettleton Road, Byford. DEC TRIM ref. DOC 13292

Bush Forever (2007) Direct interest submission. TRIM ref. DOC 19745.

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.

Government of Western Australia (2000) Bush Forever Volumes 1 and 2. Western AustralianPlanning Commission, Perth WA.

Harewood, G. (2007) Fauna Assessment Lot 101 Nettleton Road Byford. DEC TRIN ref. DOC 13289

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.

Serpentine Jarrahdale Shire (2007) Direct interest submission. TRIM ref. DOC 17791.

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.

Site Visit 19/04/07, Department of Environment and Conservation (DEC), Western Australia.TRIM ref. DOC20382.

State of Western Australia (2005) Agmaps Land Manager CD Rom.


## 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) |