



## 1. Application details

### 1.1. Permit application details

Permit application No.: 2736/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: City of Canning

### 1.3. Property details

Property: LOT 540 ON PLAN 12128 ( BATTERSEA ROAD, CANNING VALE 6155)

Local Government Area: City Of Canning

Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.24		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
Heddl Vegetation Complexes:	The proposal is to clear a total of 0.24 hectares of native vegetation for the proposed expansion of an existing playing field.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation clearing description based on site visit conducted on 12 October 2008.
Bassendean Complex - Central and South: Vegetation ranges from woodland of E. marginata - C. fraseriana - Banksia spp. to low woodland of Melaleuca species, and sedgelands on the moister sites. This area includes the transition of E. marginata to E. todliana in the vicinity of Perth.	The area under application consists of open banksia and jarrah woodland, ranging from degraded to good condition.		
Beard Vegetation Association: 1001 - Medium very sparse woodland; jarrah, with low woodland; banksia & casuarina.	The vegetation under application comprises individual Eucalyptus marginata, Banksia spp, Allocasuarina fraseriana and Nuytsia floribunda in a degraded condition. The majority of the northwest portion of the area under application is in good condition with an understorey comprising Xanthorrhoea preissii, Acacia pulchella, Adenanthos obovatus, Dampiera spp, Petrophile spp, Dasyopogon bromeliifolius and grasses.		
	The south eastern portion of the area under application has been extensively burnt, with large expanses of bare soil. Whilst there was evidence of some regeneration, this portion of the applied area had large expanses of invasive non-native grasses, but given time may have the ability to		

regenerate back to good condition.

### 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**  
During a spring flora survey of Lot 540, which included the area under application, 28 flora taxa, including 10 introduced species, were identified and the vegetation within the applied area was described as ranging from degraded to very good condition (Regeneration Technology, 2006).

Although the vegetation under application may provide some foraging habitat for fauna species in the local area, it is not considered likely to be significant, given the lack of hollows, limited understorey and the limited size of the area under application.

Given the low species diversity of the vegetation under application, it is not considered likely that it comprises a high level of biodiversity in the local area when compared to the adjacent Bush Forever site and the close proximity of Jandakot Regional Park.

**Methodology** **References:**  
- DEC (2008)  
- Regeneration Technology (2008)  
**GIS Databases:**  
- Bushforever - MFP 07/01  
- CALM Regional Parks - CALM 12/04/02

#### (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**  
There are nine records of indigenous fauna within the local area (5km radius), including the Western Brush Wallaby (*Macropus irma*), the Quenda (*Isodon obesulus fusciventer*), the Lined Skink (*Lerista lineata*) and the Numbat (*Myrmecobius fasciatus*). In addition, Regeneration Technology (2008) noted several bird species and Quenda whilst on site.

The south eastern portion of the area under application has been extensively burnt, with large expanses of bare soil and limited understorey present. While the vegetation at the time of the site inspection (DEC 2008) may not have provided suitable habitat for ground dwelling fauna such as the Western Brush Wallaby, it would be expected that the regeneration in the north western portion of the applied area is likely to have some habitat potential for the Quenda.

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.

Although the vegetation under application may be utilised by local fauna species, it is not considered likely that it comprises significant habitat for fauna given the thin, linear shape of the applied area and its location adjacent to a Bush Forever site, which would provide significant habitat for fauna in the local area.

**Methodology** **References:**  
- DEC (2008)  
- Regeneration Technology (2008)  
**GIS Databases:**  
- SAC Bio Datasets - accessed 13/11/2008

#### (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 radius) there are three recorded species of rare flora (*Caladenia huegelii*, *Drakaea micrantha* and *Eremophila glabra* subsp. *Chlorella*), the closest being *Caladenia huegelii* is located approximately 1.5km from the area under application.

Although the identified rare flora species are known to occur within the same vegetation complex and soil type as the applied area, a flora survey conducted in December 2006 and September 2008 did not identify any rare flora or priority species within the area under application (Regeneration Technology, 2008).

Given that no rare flora or priority flora were identified during the appropriately timed flora survey of the applied area, it is not considered likely that the vegetation under application includes, or is necessary for the continued



existence of, rare flora.

- Methodology** References:
- DEC (2008)
  - Brown et al (1998)
  - Regeneration Technology (2008)
  - Western Australian Herbarium (1998)
- GIS Databases:
- Heddle Vegetation Complexes
  - Soils, Statewide - DA 11/99

**(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 (TEC) within a 5km radius of the area under application. The closest TEC is located approximately 5.5km northeast of the applied area and is identified as Floristic Community Type 8 - Herb rich shrublands in clay pans.

Given that the vegetation under application comprises Eucalyptus trees and shrubs associated with leached sandy soils, and given the distance to the nearest TEC, it is not considered likely that the vegetation under application comprises, or is necessary for the maintenance of a TEC.

- Methodology** GIS Database:
- Heddle Vegetation Complexes - DEP 21/06/95
  - Soils Statewide
  - SAC Bio Datasets 13/11//2008

**(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**  
 Heddle et al (1980) defines the vegetation under application as Bassendean-Central and South of which there is 27% of pre-European extent remaining. The vegetation under application is also described as Beard vegetation associations 1001 of which there is 25.34% of pre-European extent remaining (Shepherd, 2007).

The area under application is located within the City of Canning of which there is 7.79% of pre-European extent remaining (Shepherd, 2007). The vegetation under application is also within the Swan Coastal IBRA Region of which there is 38.1% of pre-European vegetation remaining.

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents the clearance of ecological communities with an extent below 30% of that present pre-European settlement (Commonwealth of Australia, 2001). However, the EPA (2006) recognises the Perth Metropolitan Region as a 'constrained area,' providing for the reduction of vegetation complexes to a minimum of 10% of the pre-European extent.

Given the current representation levels of the vegetation under application and the fact that there are large conservation reserves located within the local area which are comprised of the same vegetation types, it is not considered likely that the vegetation under application could be considered significant as a remnant.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregion*				
Swan Coastal Plain^	1,501,456	571,758	38.1	
City of Canning**	5,010	,390	7.79	
Heddle vegetation complex***				
Bassendean-Central & South	87,477	23,624	27.0	0.7
Beard vegetation type*				
1001	57,410	14,545	25.34	4.1

\* (Shepherd, 2007)

\*\* (Shepherd et al, 2001)

\*\*\* (EPA, 2006)

^ Area within Intensive Land Use Zone

- Methodology** GIS Databases:  
- Commonwealth of Australia (2001)- EPA (2006)  
- EPA (2006)  
- Shepherd (2007)  
GIS Databases:  
- Heddle Vegetation Complexes - DEP 21/06/95  
- Interim Biogeographic regionalisation of Australia

**(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**

The area under application is located within a multiple use wetland. In addition, there is a Conservation Category Wetland (CCW) located approximately 3m to the northeast of the applied area and five EPP Lakes, the closest of which is located approximately 2.4km southeast of the applied area.

Although the area under application is located within a mapped wetland, no wetland dependent vegetation was identified during the flora survey Regeneration Technology, 2008). Furthermore, Lot 540 is vested in the City of Canning for the purpose of Public Recreation and an established playing field exists within this property.

Given the above, and that no wetland dependent vegetation was observed during the site inspection (DEC 2008), the proposed clearing is not considered likely to include vegetation growing in, or in association with, a watercourse or wetland.

- Methodology** References:  
- DEC (2008)  
- Regeneration Technology (2008)  
GIS Databases:  
- EPP, Lakes  
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain  
- Hydrography, linear (hierarchy)

**(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 chief soils within the area under application are described as leached sands (Northcote et al, 1968) which are generally considered to have a low risk of water erosion and waterlogging. The area under application is also associated with a nil to low risk of salinity.

The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be nutrient export and wind erosion (Department of Agriculture, 2005). The clearing of 0.24 ha of native vegetation is unlikely to significantly impact on the export of phosphorous.

The high wind erosion potential is due to the sandy nature of the soils and without appropriate vegetation cover, the proposed clearing may result in wind erosion. Given that the proposed land use is for the extension of a turfed playing field, the area under application will have adequate ground cover and irrigation, therefore minimising the potential for wind erosion.

Given the above, it is therefore not considered likely that the proposed clearing would result in appreciable land degradation.

- Methodology** References:  
- DEC (2008)  
- Department of Agriculture (2005)  
- Northcote et al. (1960-68)  
GIS Databases:  
- Salinity Risk 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**

Jandakot Regional Park is located approximately 270 metres southeast of the applied area and the Jandakot Airport Area (listed on the Register of National Estate and identified as a System 6 conservation reserve) is situated approximately 1.4km to the west. Given the distance to these reserves and the limited nature of the



proposed clearing, it is not considered likely to have direct or indirect impact on the environmental values of these nearby conservation reserves.

The area under application is located immediately adjacent to Acourt Road Bushland, which is also a Bush Forever site (id. 389).

Although it is not considered likely that the proposed clearing would have a direct impact on the environmental values of this Bush Forever site, the potential for indirect impacts such as the spread or introduction of dieback or weed species by machinery does exist. There are consequences associated with the spread of such diseases and exotic species into an area reserved for conservation, including the potential local extinction of species.

Given that the proposed clearing may indirectly impact on the environmental values of the adjacent Bush Forever site, it is considered that it may be at variance to this Principle.

In order to minimise the risk of introducing weeds or dieback into the adjacent conservation reserve a condition has been imposed on the permit relating to weed and dieback prevention.

**Methodology**    **References:**  
- DEC (2008)  
**GIS Databases:**  
- Bushforever - MFP 07/01  
- CALM Managed Lands and Waters  
- CALM Regional Parks - CALM 12/04/02  
- Register of National Estate  
- System 6 Conservation Reserves

**(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 nil to low risk of salinity. The northwest portion of the applied area is located within a Priority 2 Public Drinking Water Source Area (PDWSA). Priority 2 (PDWSA areas cover land where there is low risk development, such as low intensity rural areas, or where development with conditions is allowed so risk of pollution to the water source is minimised.

Given that the proposed clearing is limited to 0.24 hectares of vegetation contained within a narrow, linear strip, it is not considered likely that it would result in salinity causing deterioration in groundwater quality. In addition, given the low risk of water erosion associated with the soils, and the low relief on site, it is not considered likely that the proposed clearing would result in deterioration in surface water quality.

Given the above, the proposed clearing is not considered likely to be at variance to this Principle.

**Methodology**    **Reference:**  
- DEC (2008)  
**GIS Databases:**  
- Hydrographic, linear (hierarchy) - DOW  
- Public Drinking Water Source Areas (PDWSAs) - DOW  
- Salinity Mapping LM 25 ? 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 4.1km northeast of an un-named drain at an elevation between 25-30 metres. Given the area under application is limited to 0.24 hectare and is contained within a narrow, linear strip over a distance of approximately 160 metres, it is not considered likely that the proposed clearing of the vegetation would impact on peak flood height or duration.

**Methodology**    **GIS Databases:**  
- Geomorphic wetlands (Mgt Categories) - Swan Coastal Plain - DEC  
- Hydrography, linear (hierarchy) - DOW  
- Soils, Statewide  
- Topographic Contours, Statewide - DOLA 12/09/02

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

**Comments**  
In a submission, Bush Forever did not object to the proposed clearing, but recommended that all construction,



landscaping and clearing be undertaken in an environmentally sensitive manner with minimal disturbance to the natural vegetation and recommended the erection of temporary fencing for the duration of the proposed works.

**Methodology**

**References:**

-Submission, Direct Interest Submission, 17/11/2008, TRIM DOC 68292.

**4. Assessor's comments**

**Comment**

The assessable criteria have been addressed and the proposed clearing may be at variance to Principle (h).

**5. References**

Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.

Commonwealth of Australia (2001) National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS, Canberra.

DEC (2008) Site Inspection Report for Clearing Permit Application CPS 2705/1, road construction, Shire of Waroona. Site inspection undertaken 12/10/2008. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC 68683).

Department of Agriculture (2005) AgMaps Land Manager CD-rom for the Shires of Serpentine-Jarrahdale, Kwinana, Rockingham, Mandurah, Murray, Boddington, Waroona and Harvey. Department of Agriculture, Western Australia. ISSN: 1448-235X

EPA (2006) Guidance for the Assessment of Environmental Factors - Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region. Guidance Statement No 10. Environmental Protection Authority, Western Australia.

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.

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

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

Regeneration Technology (2008) Environmental Assessment for Clifton Park Clearing Permit, unpublished summary report prepared for City of Canning.

Shepherd, D.P. (2007). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

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.

Submission, Direct Interest Submission, 17/11/2008, TRIM DOC 68292.

Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.calm.wa.gov.au/> Accessed on 17/11/2008.

**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)

