



## **CLEARING PERMIT**

*Granted under section 51E of the Environmental Protection Act 1986*

### **PERMIT DETAILS**

Area Permit Number: 3237/1

File Number: DEC12181

Duration of Permit: From 14 March 2010 to 14 March 2014

### **PERMIT HOLDER**

Bronzewing Investments Pty Ltd

### **LAND ON WHICH CLEARING IS TO BE DONE**

Lot 97 on Deposited plan 43176, Adelaide Street, Hazelmere

### **AUTHORISED ACTIVITY**

The Permit Holder shall not clear more than 5.6 hectares of native vegetation within the area cross-hatched yellow on attached Plan 3237/1a.

### **CONDITIONS**

#### **1. Vegetation management**

- (a) Prior to commencing clearing, the Permit Holder shall construct a fence enclosing the area cross-hatched red on attached Plan 3237/1b.
- (b) Within one month of installing the fence the Permit Holder shall notify the CEO in writing that the fence has been completed.

#### **2. Dieback and weed control**

- (a) When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:
  - (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
  - (ii) shall not move soils in wet conditions;
  - (iii) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
  - (iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
- (b) The Permit Holder must remove or kill any *weeds* growing within area cross-hatched red on attached Plan 3237/1b prior to revegetation works.
- (c) At least once in each 12 month period for the *term* of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas cleared under this Permit and within area cross-hatched red on attached Plan 3237/1b.

### 3. Soil management

The Permit Holder shall apply soil stabiliser within the area cross-hatched yellow on attached Plan 3237/1a where the Permit Holder has not commenced construction works within 14 days of the area being cleared in accordance with this Permit.

### 4. Revegetation

- (a) The Permit Holder shall establish and maintain native vegetation within the area cross-hatched red on attached Plan 3237/1b in accordance with the following conditions:
  - (i) the vegetation shall be established and maintained to an average *planting* density of 1 plant per m<sup>2</sup>;
  - (ii) the species shall consist of overstorey, midstorey and understorey species;
  - (iii) seeds and propagating material shall be sourced from within a 10km radius of the area cleared; and
  - (iv) the *planting* is to commence within 12 months of the Permit start date.
- (b) Within twelve months of undertaking *revegetation* in accordance with condition 4(a) of this Permit, the Permit Holder must:
  - (i) determine the species composition, structure and density of the area *revegetated*; and
  - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 4(b)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the Permit Holder must undertake additional *planting* or *direct seeding* of native vegetation in accordance with the requirements of condition 4(a) of this Permit.

### 5. Records must be kept

In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 4 of this Permit:

- (a) the location of any areas *revegetated* and *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
- (b) a description of the *revegetation* and *rehabilitation* activities undertaken;
- (c) the size of the area *revegetated* and *rehabilitated* (in hectares); and
- (d) the species composition, structure and density of *revegetation* and *rehabilitation*.

### 6. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 5 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 14 December 2013 the permit holder must provide to the CEO a written report of records required under condition 5 of this Permit where these records have not already been provided under condition 6(a) of this Permit.

### Definitions

The following meanings are given to terms used in this Permit:

*dieback* means the effect of *Phytophthora* species on native vegetation;

*direct seeding* means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

*environmental specialist* means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit;

*fill* means material used to increase the ground level, or fill a hollow;

*local provenance* means native vegetation seeds and propagating material from natural sources within 20 kilometres of the area cleared;

*mulch* means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

*planting* means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

*regenerate/ed/ion* means *revegetation* that can be established from in situ seed banks contained either within the topsoil or seed-bearing *mulch*;

*revegetate/ed/ion* means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area;

*term* means the duration of this Permit, including as amended or renewed; and

*weed/s* means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.



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Keith Claymore  
A/ ASSISTANT DIRECTOR  
NATURE CONSERVATION DIVISION

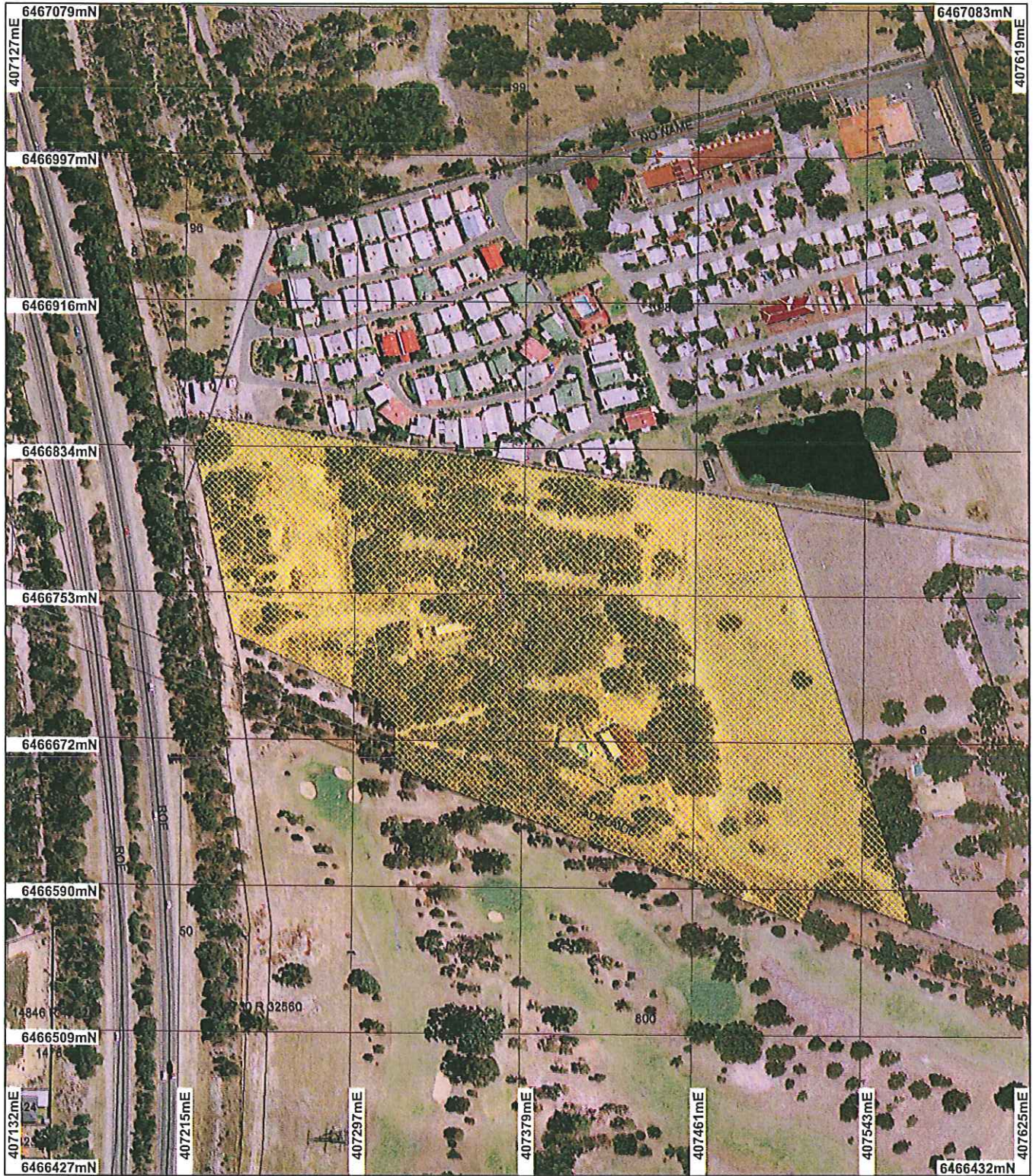
*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

11 February 2010





# Plan 3237/1a



### LEGEND

- ☐ Cadastre for labelling  
Road Centrelines
-  FW  
 HY  
 LRO  
(cont)

- LR3  
MR  
N  
TR

Perth Metropolitan Area  
North 20cm Orthomosaic -  
Landgate 2007

### Clearing Instruments

- ☐ Area Approved to Clear



Scale 1:2885

(Approximate when reproduced at A4)

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

*[Signature]* Date 1/11/01  
K. Claymore  
Officer with delegated authority under Section 20 of  
the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.

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\* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.



# Plan 3237/1b



## LEGEND

- Cadastre for labelling
- Road Centrelines
- FW
- HY
- LRQ (cont)

LRS  
 MR  
 N  
 TR  
 Perth Metropolitan Area  
 North 20m Orthomosaic  
 Landgate 2007

- Clearing Instruments
- Areas Subject to Conditions



Scale 1:1781  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

*Kieran Claymore* Date *11/2/10*

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



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## 1. Application details

### 1.1. Permit application details

Permit application No.: 3237/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Bronzewing Investments

### 1.3. Property details

Property: LOT 97 ON PLAN 43176 (House No. 399 ADELAIDE HAZELMERE 6055)  
Local Government Area:  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
5.6		Mechanical Removal	Miscellaneous

## 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
<p>Hedde Vegetation Type:</p> <p>Forrestfield Complex: Vegetation ranges from open forest of <i>E. calophylla</i> - <i>E. wandoo</i> - <i>E. marginata</i> to open forest of <i>E. marginata</i> - <i>E. calophylla</i> - <i>C. fraseriana</i> - <i>Banksia</i> species. Fringing woodland of <i>E. rudis</i> in the gullies that dissect this landform. (Hedde et al. 1980)</p> <p>Mattiske:</p> <p>Fo: Mosaic of open forest of <i>Corymbia calophylla</i>-<i>Eucalyptus wandoo</i>-<i>Eucalyptus marginata</i> subsp. <i>elegantella</i> and open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Mattiske 1998)</p> <p>Beard vegetation Association:</p> <p>1001: Medium very sparse woodland; jarrah, with low woodland; <i>banksia</i> &amp; <i>casuarina</i> (Shepherd 2007)</p>	<p>The proposal is to clear 5.6 ha for the purpose of constructing a lifestyle village.</p> <p>The majority of the vegetation under application (2.9 ha) consists of woodland of <i>Eucalyptus marginata</i> and <i>Allocasuarina fraseriana</i> over mixed shrubs and herbs in a degraded condition. The weeds <i>Ehrharta calycina</i> and <i>Eragrostis marginata</i> occur within this area.</p> <p>A large area (2.4 ha) of completely degraded condition vegetation also occurs with occasional <i>Eucalyptus marginata</i> over weed species.</p> <p>A small area (0.3 ha) of good condition vegetation occurs in the southern portion of the property and consists of <i>Banksia attenuata</i> and <i>Banksia menziesii</i> woodland over <i>Xanthorrhoea preissi</i>, <i>Daviesia</i> spp, <i>Diuris</i> spp, <i>Jacksonia floribunda</i>, <i>Drosera</i> sp, <i>Lomandra</i> spp, <i>Conospermum undulatum</i> and <i>Isopogon drummondii</i>.</p>	<p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)</p> <p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)</p>	<p>Vegetation clearing description based on site visit conducted by DEC officers on the 19 August 2009 (DEC 2009) and a flora survey undertaken during June 2009 (Mattiske 2009).</p>

### 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 at variance to this Principle**

The majority of the vegetation (~2.9ha) under application consists of woodland of *Eucalyptus marginata* and *Allocasuarina fraseriana* over mixed shrubs herbs and the weeds *Ehrharta calycina* and *Eragrostis marginata*, in a degraded (Keighery 1994) condition (DEC 2009, Mattiske 2009). A large area (~2.7ha) of completely degraded (Keighery 1994) condition (DEC 2009, Mattiske 2009) vegetation also occurs with occasional *Eucalyptus marginata* over weed species. In addition, a small area of good (Keighery 1994) condition (DEC 2009, Mattiske 2009) vegetation occurs in the southern portion of the property and consists of *Banksia attenuata* and *Banksia menziesii* woodland over *Xanthorrhoea preissii*, *Daviesia* spp, *Diuris* spp, *Jacksonia floribunda*, *Drosera* sp, *Lomandra* spp.

Flora surveys undertaken in June and September 2009 identified 70 flora species occurring within the area under application (Mattiske 2009). In addition, 14 specimens of the rare flora species *Conospermum undulatum* and 7 specimens of the priority species *Isopogon drummondii* were identified during the flora survey mostly within the good condition vegetation along the south-western edge of the area under application (Mattiske 2009a, DEC 2009).

The area under application contains a mapped Threatened Ecological Community (TEC) Floristic Community Type (FCT) 20a: *Banksia attenuata* woodlands over species rich dense shrublands in a good condition (Mattiske 2009).

Give the above, it is considered likely that the proposed clearing is at variance to this Principle. To mitigate these impacts a revegetation and fencing condition it to be placed on the permit to protect the very good (Keighery 1994) condition TEC and the remaining 11 rare flora and 10 priority flora plants that occur in the southwest corner of the property.

##### Methodology

##### References

- DEC (2009)
- Keighery (1994)
- Mattiske (2009)
- Mattiske (2009a)
- GIS Databases
- SAC Bio Databases (17/08/2009)

#### (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**

Within the local area (~ 5 km radius) 3 species of conservation significant fauna have been recorded including the Chuditch (*Dasyurus geoffroii*), the Quenda (*Isodon obesulus fusciventer*) and the Carnaby's black cockatoo (*Calyptrorhynchus latirostris*).

The majority of the vegetation under application is in degraded to completely degraded condition and includes limited understorey (DEC 2009). Given this, it is not considered likely to provide significant habitat for ground-dwelling fauna such as snakes, lizards and the conservation significant species, Quenda or Chuditch (DEC 2007).

The area under application contains a relatively small area (0.43 ha) of *Banksia* woodland in good (Keighery 1994) condition (DEC 2009). Carnaby's black cockatoos are known to feed on seeds, nuts and flowers of a large variety of plants including *Banksia*, *Dryandra* and *Grevillea* (Shah, 2006). Therefore, the vegetation under application may be suitable as feeding habitat for the Carnaby's black cockatoo.

However, given the relatively small size of the good condition vegetation and the close proximity (96 m west) to bush remnants in a better condition, it is not considered likely for the proposed clearing to be at variance to this Principle.

##### Methodology

##### References

- DEC (2007)
- DEC (2009)
- Shah (2006)
- GIS Databases
- SAC Bio Databases (17/08/2009)



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

**Comments      Proposal is at variance to this Principle**

There are six rare flora species, *Conospermum undulatum*, *Acacia aphylla*, *Acacia anomala*, *Calytrix breviseta* subsp. *breviseta*, *Anthocercis gracilis* and *Darwinia apiculata* recorded in the local area (~ 5 km radius).

The area under application does not contain the preferred habitat for the species *Acacia aphylla*, *Acacia anomala*, *Calytrix breviseta* subsp. *breviseta*, *Anthocercis gracilis* and *Darwinia apiculata* (DEC 2009, Western Australian Herbarium 1998-).

However, 25 specimens of *Conospermum undulatum* have been identified within the property with 14 of these occurring within the area under application. These plants were identified during flora surveys undertaken during June and September 2009 (Mattiske 2009, Mattiske 2009a). A 'permit to take' rare flora under the Wildlife Conservation Act 1950 has been obtained to take the 14 plants within the applied area.

To mitigate this impact a fencing and rehabilitation condition be placed on the permit to protect the remaining 11 individuals of the rare flora that occurs in the southwest corner of the property.

**Methodology**

**References**

- DEC (2009)
- Mattiske (2009)
- Mattiske (2009a)

- Western Australian Herbarium (1998-)

GIS Databases

-SAC Bio Databases (17/08/2009)

**(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 at variance to this Principle**

Fourteen recordings of the Threatened Ecological Community (TEC) 20a: *Banksia attenuata* woodlands over species rich dense shrublands occur in the local area (~5km radius).

The nearest occurrences of FCT 20a occurs within the southern portion of the area under application. The flora survey (Mattiske 2009) and the site visit (DEC 2009) has identified 0.43ha of this TEC occurring with 0.3 ha of this TEC in a good (Keighery 1994) condition occurring within the applied area and 0.13 ha of very good condition TEC occurring outside the applied area but within the southwest corner of the property.

DEC advised that only ~ 412 ha with ~7% in conservation reserves exist of FCT 20a and that all occurrences of this community are considered important (DEC 2009a).

Given the condition of the vegetation and the identification of a TEC during the flora survey, it is considered likely for the proposed clearing to be at variance to this Principle. A revegetation and fencing condition is placed on the Permit to protect the remaining very good (Keighery 1994) condition TEC in the southwest corner.

**Methodology**

**References**

- DEC (2009)
- DEC (2009b)
- Mattiske (2009)

Gis Databases

-SAC Bio Databases (17/08/2009)

**(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**

Two of the three vegetation types that occur within the application area retain less than the EPA supported threshold level (30%); below which species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000). Although the vegetation complexes identified on site have less than the recommended 30% threshold remaining the applied area is considered to be within a constrained area which is the Perth Metropolitan Region. Within this area a minimum of 10% pre- European extent of vegetation complexes remaining is considered acceptable (EPA 2006). Given this and the degraded condition of the area under application, it is not considered for the applied area to be a significant remnant.

In addition, the area under application is located within the City of Swan, within which there is 27.0% of pre-European vegetation extent remaining and there is approximately 39% of pre-European vegetation remaining in the local area (~5km radius). This demonstrates that the applied area does not occur within an extensively

cleared landscape.

Given the above, it is considered that the applied area is not at variance to this Principle.

	Pre-European (ha)	Current extent (ha)	Remaining %
IBRA Bioregion			
Swan Coastal Plain	1,501,208	583,141	38.84*
City of Swan	8868	2402	27.0*
Local Area (~5km radius)	7850	~3990.9	~39.0
Mattiske vegetation complex			
Fo	37 106	11 371	30.6***
Hedde vegetation complex			
Forrestfield Complex	20 052	3518	17.5
Beard type in Bioregion			
1001	57 410	14 545	25.3**

\* (Shepherd 2007)

\*\* (EPA, 2006)

\*\*\* (Mattiske 1998)

<b>Methodology</b>	References
	- EPA (2000)
	- EPA (2006)
	- Mattiske (1998)
	- Shepherd (2007)
	GIS Databases
	- SAC Bio Databases (08/07/2009)
	- Hedde Vegetation Complexes
	- NLWRA, Current Extent of Native Vegetation
	- Mattiske (1998)

**(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 nearest wetland to the area under application is a Multiple Use wetland occurring 800 m east of the area under application. A Conservation Category wetland occurs 1.7 km north of the area under application. The nearest watercourse (Helena River) occurs 2.0 km north east of the area under application.

No wetland dependent vegetation was observed during the site visit nor identified during the flora survey (DEC 2009, Mattiske 2009).

Given this and the distance to the nearest watercourse and wetlands it is not considered likely for the proposed clearing to be at variance to this Principle.

<b>Methodology</b>	References
	- DEC (2009)
	- Mattiske (2009)
	GIS Databases
	- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
	- Hydrography, linear

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

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

The area under application comprise of leached sands (Northcote et al. 1960-68) occurring on the Foothills (Ridge Hill Shelf) Yoganup Formation, and consisting of Bassendean sands (Mattiske 2009). These soils are considered to have a high risk of wind erosion (Department of Agriculture 2005).

There is low salinity risk within the area under application, therefore it is not considered likely that the proposed clearing would result in an increase in salinity.



However, given the risk of wind erosion and the relatively large area to be cleared (5.6ha) it is considered that the proposed clearing may be at variance to this Principle. A soil stabilization condition will be placed on the permit to reduce soil erosion within the area to be cleared.

**Methodology**    **References**  
-Department of Agriculture (2005)  
-Northcote et al. (1960-68)  
GIS Databases  
-Soils, Statewide

**(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 closest conservation reserves to the area under application are Bush Forever site 122: Hawkevale Bushland, High Wycombe occurring 96 m west; Bush Forever site 213: Bushmead Bushland, Swan occurring 425 m east, Bush Forever site 481: Stirling Crescent Bushland, Hazelmere occurring 750 m north and the Darling Range Regional Park occurring 1.5 km east of the area under application.

The area under application is not connected to the surrounding conservation areas and does not provide a linkage or stepping stone between the conservation areas given the predominantly degraded condition of the vegetation. Therefore, the proposed clearing is not considered likely to be at variance to this Principle.

**Methodology**    **GIS Database:**  
-Bushforever  
-DEC Managed lands  
- Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007

**(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 nearest wetland to the area under application is a Multiple Use wetland occurring 800 m east of the area under application. A Conservation Category wetland occurs 1.7 km north of the area under application. The nearest watercourse (Helena River) occurs 2.0 km north east of the area under application.

The area under application is not within a Priority Drinking Water Source Area (PDWSA) and has a low salinity risk. Therefore, it is unlikely for the proposed clearing to cause deterioration to the quality of underground water.

Given the distance to the closest wetlands and watercourse and the low salinity risk, it is not considered likely for the proposed clearing to be at variance to this Principle.

**Methodology**    **GIS Databases**  
-Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain  
-Hydrography, linear  
-Priority Drinking Water Source Area (PDWSA)  
-Salinity Risk

**(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 nearest wetland to the area under application is a Multiple Use wetland occurring 800 m east of the area under application. A Conservation Category wetland occurs 1.7 km north of the area under application. The nearest watercourse (Helena River) occurs 2.0 km north east of the area under application.

Given the distance to the nearest watercourse and wetlands it is not considered likely for the proposed clearing to be at variance to this Principle.

**Methodology**    **GIS Databases**  
-Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain  
-Hydrography, linear

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

**Comments**  
The proposal is to clear 5.6 ha (entire property) for the construction of a lifestyle village.

The area under application is zoned Rural under the Metropolitan Regional Scheme and General Rural under

the City of Swan's Town Planning Scheme.

There are 25 plants of *Conospermum undulatum* and 17 plants of priority flora *Isopogon drummondii* within the property. An application for a permit to take 14 *Conospermum undulatum* plants of and 7 *Isopogon drummondii* plants has been granted by DEC. The remaining 11 *Conospermum undulatum* and 10 *Isopogon drummondii* will be protected in the remaining vegetation in the southwest corner of the property.

Development approval from the City of Swan and WAPC has been obtained.

An offset proposal has been received from the applicant (Trim ref. DOC116992 and DOC113550), which has been incorporated with the conditions imposed on the permit.

**Methodology** GIS databases:  
- Metropolitan Regional Scheme

#### 4. Assessor's comments

##### Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, the proposed clearing is at variance to Principles not likely to be at variance to the clearing Principles (a), (b), (c), and (d) and may be at variance to Principle (g).

#### 5. References

DEC (2009) Site Inspection Report for Clearing Permit Application CPS 3237/1, Lot 97 Adelaide St, Hazelmere. Site inspection undertaken 19/08/2009. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC94341).

DEC (2007) DEC Fauna Habitat Notes.xls. February 2007. Department of Environment and Conservation, Western Australia.

DEC (2009a) Swan Coastal District comments on Development Application No: 21-50272-1, Lot 97 Adelaide St Hazelmere, Department of Environment and Conservation. TRIM Ref DOC 93645.

DEC (2009b) Species and Communities Branch, DEC. Advice received regarding occurrence of Threatened Ecological Community (TEC) within Lot 97 Adelaide St, Hazelmere. TRIM Ref. DOC95871.

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 (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, Western Australia.

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.

Mattiske (2009) Summary of Flora Survey. TRIM Ref DOC91906

Mattiske (2009a) Summary of Additional Flora Survey. TRIM Ref DOC99941

Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.

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Shah, B. (2006) Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.

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.

Western Australian Herbarium (1998). FloraBase -The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 20/8/2009).

## 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 (now DEC)
DMP	Department of Mines and Petroleum (ex DoIR)
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)

