



## CLEARING PERMIT

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

<b>Purpose Permit number:</b>	CPS 5586/1
<b>Permit Holder:</b>	Metropolitan Cemeteries Board
<b>Duration of Permit:</b>	19 October 2013 – 19 October 2018

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

### PART I – CLEARING AUTHORISED

**1. Purpose for which clearing may be done**

Clearing for the purpose of sand extraction and future cemetery development.

**2. Land on which clearing is to be done**

Lot 1355 on Deposited Plan 144537, Baldivis.

**3. Area of Clearing**

The Permit Holder must not clear more than 5 hectares of native vegetation within the area shaded yellow on attached Plan 5586/1.

**4. Application**

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

**5. Type of clearing authorised**

The Permit Holder shall not clear native vegetation unless extracting sand within 3 months of the authorised clearing being undertaken.

### PART II – MANAGEMENT CONDITIONS

**6. Native vegetation conservation**

- (a) Prior to commencement of clearing authorised under this permit, the Permit Holder shall enter into a conservation covenant under Section 30B of the *Soil and Land Conservation Act 1945* to reserve in perpetuity 5 hectares of native vegetation within the area shaded red on attached Plan 5586/1 for the protection and management of vegetation;
- (b) When the Permit Holder enters into a conservation covenant under condition 6(a), the Permit Holder is to execute and return to the CEO the completed conservation covenant described in condition 6(a) of this permit within one month of its completion and registration on the Certificate of Title.
- (c) The conservation covenant shall include, but not be limited to, the following conditions:
  - (i) native vegetation in the area subject to the conservation covenant must not be cleared, other than required under the *Bush Fires Act 1954*;
  - (ii) the land subject to the conservation covenant shall not be used for the purpose of cultivation of crops or pasture, or for the de-pasturing of any stock; and

- (iii) the conservation covenant is to apply in perpetuity and be registered on the Certificate of Title of the property.

#### **7. Vegetation management**

- (a) Prior to commencing clearing, the Permit Holder shall construct a fence enclosing the area shaded red on attached Plan 5586/1, sufficient to exclude stock and vehicles.
- (b) Within one month of installing the fence the Permit Holder shall notify the CEO in writing that the fence has been completed.

#### **8. Fauna management**

- (a) Prior to undertaking any clearing authorised under this Permit, the Permit Holder shall engage a *fauna specialist* to conduct a *fauna survey* of the Permit Area to identify the fauna species identified below and *black cockatoo habitat tree/s* being utilised by fauna species listed below:
  - (i) *Calyptorhynchus lateriosis* (*Carnaby's cockatoo*);
  - (ii) *Calyptorhynchus baudins* (*Baudin's cockatoo*); and
  - (iii) *Calyptorhynchus banksii naso* (*Forest Red-tailed Black Cockatoo*).
- (b) Where fauna or *black cockatoo habitat trees* are identified under condition 8(a) of this Permit, the Permit Holder shall engage a *fauna specialist* to map the fauna and *black cockatoo habitat tree/s* within the Permit Area.
- (c) Prior to undertaking any clearing authorised under this Permit, the Permit Holder shall provide the results of the *fauna survey* in a report to the CEO.
- (d) The *fauna survey* report must include the following;
  - (i) the location of the *black cockatoo habitat tree/s* recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
  - (ii) the location of any fauna species, listed in condition 8(a) if identified, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees; and
  - (iii) the name and amount of each fauna species identified;
  - (iv) the methodology, used to survey the Permit Area; and
  - (v) a description of the *black cockatoo habitat tree/s* identified.
- (e) where fauna are identified under condition 8(a) of this Permit, the Permit Holder shall ensure :
  - (i) no clearing of the *black cockatoo habitat tree/s* that contain the identified fauna occurs, unless first approved by the CEO; and
  - (ii) no taking of identified fauna occurs, unless first approved by the CEO.

#### **9. Records to be kept**

The Permit Holder must maintain the following records for activities done pursuant to this Permit: In relation to fauna management pursuant to condition 8(e) of this Permit:

Where the taking of identified fauna has been approved by the CEO, the location and date where relocated fauna was released, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees.

#### **10. Reporting**

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
  - (i) of records required under condition 9 of this Permit; and
  - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 19 July 2018, the Permit Holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

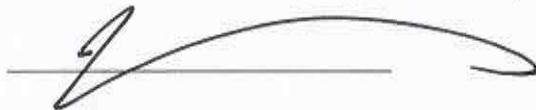
## DEFINITIONS

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

***black cockatoo habitat tree/s:*** means trees that have a diameter, measured at 1.5 metres from the base of the tree, of 50 centimetres or greater;

***fauna specialist:*** means a person who holds a tertiary qualification specializing in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the CEO as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the *Wildlife Conservation Act 1950*; and

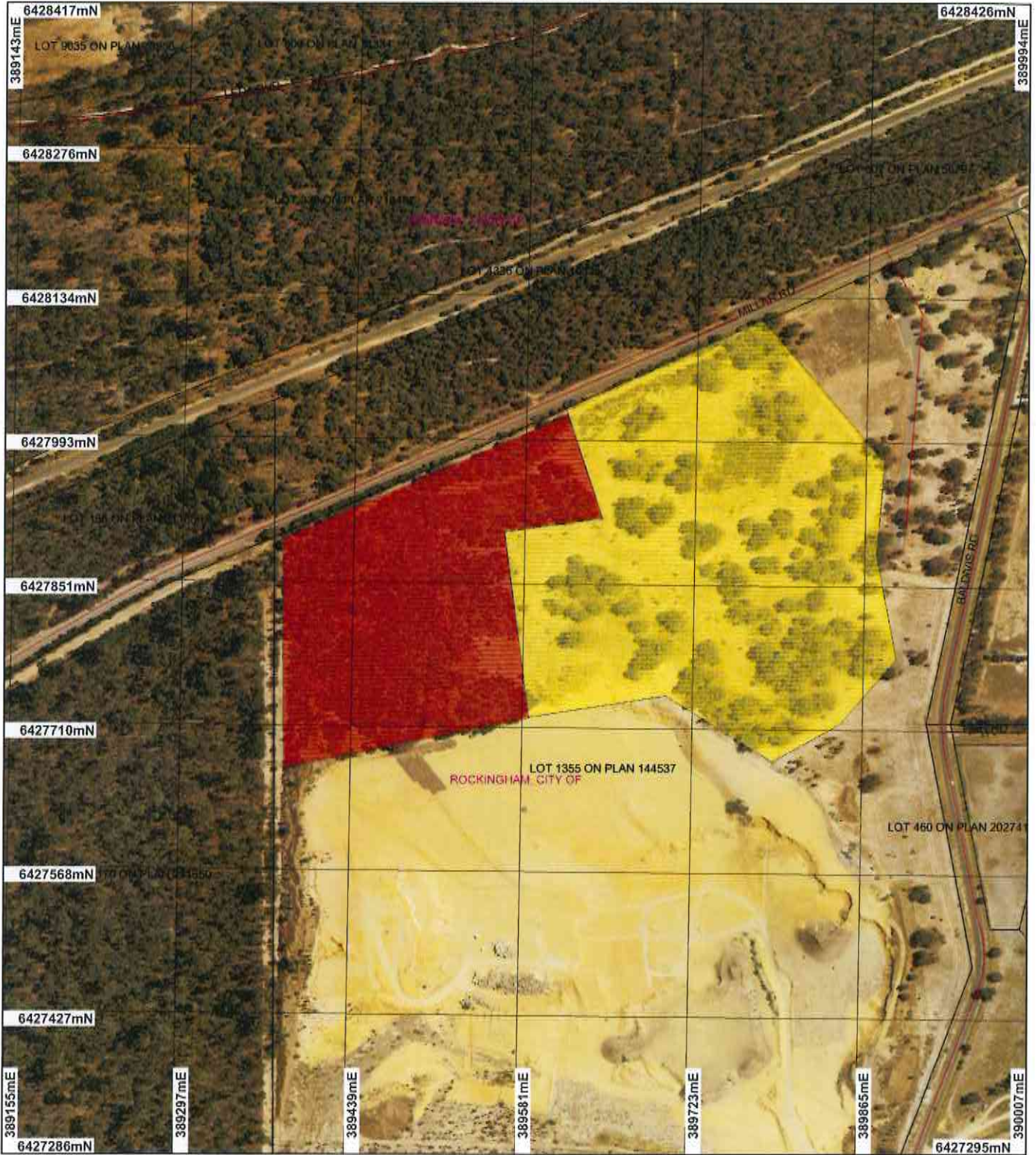
***fauna survey:*** means a field-based investigation, including a review of established literature, of the biodiversity of fauna and/or fauna habitat of the Permit Area. Where conservation significant fauna are identified in the Permit Area, the survey should also include sufficient surrounding areas to place the Permit Area into local context.



Jason Banks  
ACTING DIRECTOR GENERAL

19 September 2013

# Plan 5586/1



## LEGEND

- Cadastral
- Local Government Authorities

Road Centrelines  
Perth Metropolitan Area  
Central 15cm Orthomosaic -  
Landgate 2012

### Clearing Instruments

- Areas Subject to Conditions
- Areas Approved to Clear



Scale 1:5000

(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.

Date 23/9/13

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



Government of Western Australia  
Department of Environment Regulation

WA Crown Copyright 2002



## 1. Application details

### 1.1. Permit application details

Permit application No.: 5586/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Metropolitan Cemeteries Board

### 1.3. Property details

Property: LOT 1355 ON PLAN 144537 (House No. 102 BALDIVIS 6171)  
Local Government Area: City of Rockingham  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
5		Mechanical Removal	Extractive Industry

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 19 September 2013

## 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: 998 - Medium woodland; tuart (Shepherd et al. 2001).	The amended application is to clear up to 5 hectares of native vegetation within a 10 hectare footprint for the purpose of sand extraction and future cemetery development within Lot 1355 on Deposited Plan 144537, Baldivis, in the City of Rockingham.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994).	Vegetation description and condition were determined through a Department of Environment and Conservation (DEC) site inspection (2013) and aerial imagery.
Beard Vegetation Association: 1001 - Medium very sparse woodland; jarrah, with low woodland; banksia & casuarina (Shepherd et al. 2001).		To	The vegetation under application consists of <i>Corymbia calophylla</i> , <i>Eucalyptus marginata</i> , <i>E. gomphocephala</i> , <i>Acacia pulchella</i> , <i>A. rostellifera</i> , <i>A. saligna</i> , <i>Kunzea glabrescens</i> , <i>Xanthorrhoea preissii</i> and <i>Banksia</i> sp.
Beard Vegetation Association: 968 - Medium woodland; jarrah, marri & wandoo (Shepherd et al. 2001).		Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994).	The vegetation to be cleared is in degraded to completely degraded condition with little to no native groundcover (DEC 2013).
Hedde Vegetation Complex: Karrakatta Complex Central and South - Predominantly open forest of <i>Eucalyptus gomphocephala</i> (Tuart) - <i>Eucalyptus marginata</i> (Jarrah) - <i>Corymbia calophylla</i> (Marri) and woodland of <i>Eucalyptus marginata</i> (Jarrah) - <i>Banksia</i> species (Hedde et al. 1980).			

## 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 amended application is to clear up to 5 hectares of native vegetation within a 10 hectare footprint on Lot 1355 on Deposited Plan 144537, Baldivis, for the purpose of sand extraction and future cemetery development.

The vegetation under application is a *Eucalyptus marginata* and *Corymbia calophylla* overstorey with little to no understorey over non-native grasses (DEC 2013). This vegetation is degraded to completely degraded (Keighery 1994) condition. The area has been highly disturbed through historical clearing and grazing.

There are numerous priority flora species recorded within the local area (10 kilometre radius). The closest of these is a priority four flora species, which is located approximately 150 metres from the application area on a similar vegetation type, but a different soil type. This species occurs alongside outcropping limestone (Western Australian Herbarium 1998) and has been mapped in association with *Eucalyptus rudis* and *Melaleuca* sp. Given that no outcropping limestone, *E. rudis* or *Melaleuca* sp. was identified during a Department of Environment and Conservation (DEC) site inspection (2013), the application area is unlikely to include this

species. The other priority species are unlikely to occur within the application area given their habitat requirements and the degraded condition of the vegetation under application.

There are several priority ecological communities (PEC) within the local area (10 kilometre radius). The application area is partially located within the buffer of the priority three *Eucalyptus gomphocephala*-*Agonis flexuosa* woodlands. During a DEC site inspection (2013), no *Agonis flexuosa* were observed, and only a small number of *Eucalyptus gomphocephala* were seen. Given this, the proposed clearing is unlikely to be representative of this priority ecological community. The vegetation under application is unlikely to be representative of the other PEC's which have been recorded within the local area (10 kilometre radius).

Given the degraded condition of the vegetation under application, the proposed clearing is not likely to be at variance to this principle.

**Methodology**

**References:**

DEC 2013

Keighery 1994

**GIS Databases:**

- Hedde Vegetation Complexes

- Pre-European Vegetation

- SAC Biodatasets

- Soils, Statewide

**(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 at variance to this Principle**

There are numerous conservation significant fauna species recorded from the local area (10 kilometre radius). These include the Carnaby's Cockatoo (*Calyptorhynchus latirostris*; rare or likely to become extinct, Wildlife Conservation Act 1950 (WC Act); endangered, Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)), Forest red-tailed black-Cockatoo (*Calyptorhynchus banksii* subsp. *Naso*; rare or likely to become extinct, WC Act; vulnerable, EPBC Act), Baudin's Cockatoo (*Calyptorhynchus baudinii*; rare or likely to become extinct, WC Act; vulnerable, EPBC Act) (DEC 2007-).

These cockatoos nest in the hollows of large trees, generally within woodlands or forests but will also breed in isolated trees (Commonwealth of Australia 2012). Potential nesting trees are those with a minimum diameter, measured at 1.5 metres from the base of the tree, of 500 millimetres (Commonwealth of Australia 2012). There are several large hollow bearing and potentially hollow bearing *Eucalyptus* and *Corymbia* trees within the application area, which have the potential to provide nesting habitat for Carnaby's Cockatoos and Forest Red-tailed Black Cockatoos (DEC 2013).

The vegetation under application includes *Eucalyptus* trees, *Corymbia calophylla* and some *Banksia* species, which may provide foraging habitat for black cockatoos (DEC 2013). These birds forage on the seeds, nuts and flowers of a large variety of plants including proteaceous and eucalyptus species as well as *Corymbia calophylla* (Commonwealth of Australia 2012).

The application area occurs within the buffer of a confirmed Carnaby's cockatoo roost site, which is located approximately two kilometres from the application area. Two Carnaby's cockatoos were observed flying overhead during a DEC site inspection (2013).

Given the lack of understorey within the application area, the vegetation under application is unlikely to provide habitat for ground dwelling fauna.

The vegetation under application is adjacent to Leda Nature reserve and the Leda and Adjacent Bushland Bush Forever site and forms part of an ecological linkage (Del Marco et al. 2004). The Bush Forever site comprises approximately 960 hectares of native vegetation and is likely to provide significant habitat for fauna species. Although the road dividing the Bush Forever site and the application area may reduce the value of the ecological linkage for ground dwelling species, fauna are still likely to move between the two areas of vegetation. The proposed clearing will increase the distance fauna has to negotiate between remnant patches of vegetation, increasing the risk of predation.

Given the presence of foraging habitat and several large hollow bearing and potentially hollow bearing *Corymbia* and *Eucalyptus* for breeding, the vegetation under application is likely to provide significant habitat for the black cockatoo species.

Given this, the proposed clearing is at variance to this principle. Checking the vegetation for black cockatoo breeding prior to clearing will assist in mitigating the potential impact to these species.

To address the residual environmental impacts identified in this assessment the applicant will place 5 hectares of good to very good (Keighery 1994) condition vegetation within a conservation covenant to offset the loss of the 5 hectares of vegetation in degraded (Keighery 1994) condition which is proposed to be cleared under this application.

**Methodology**   References:  
Commonwealth of Australia 2012  
DEC 2006  
DEC 2007-  
DEC 2013  
DSEWPC 2013  
Keighery 1994

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

**Comments**       **Proposal is not likely to be at variance to this Principle**

There are several records of rare flora species within the local area (10 kilometre radius). The closest record occurs on the same soil and vegetation type as the application area and is located approximately 8.6 kilometres from the application area. This species is found on dark grey to blackish, sandy clay-loam substrates in winter wet depressions or swamps (DSEWPC 2013). Given that the application area does not occur within a swamp or depression and occurs on a different soil type, it is unlikely that this species occurs within the vegetation under application area.

The application area has been historically cleared and grazed and has little to no native groundcover (DEC 2013). Given this, the application area is unlikely to contain habitat suitable for rare flora species.

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

**Methodology**   References:  
DEC 2013  
DSEWPC 2013  
GIS Databases:  
- Pre-European Vegetation  
- Hydrography, Linear  
- Heddle Vegetation Complex  
- Soils, Statewide

**(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 several threatened ecological communities within the local area (10 kilometre radius). The closest of these is the Critically Endangered 'Woodlands over sedgelands in Holocene dune swales of the southern Swan Coastal Plain', which is located approximately 3 kilometres from the application area.

The application area is unlikely to contain suitable habitat for any of the mapped threatened ecological communities (DEC 2013).

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

**Methodology**   References:  
DEC 2013  
GIS Databases:  
- SAC Biodatasets

**(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**

Aerial photography indicates the local area (10 kilometre radius) is approximately 30 percent vegetated.

The IBRA Bioregion (Swan Coastal Plain) and the local government agency (City of Rockingham) retain approximately 39 percent and 30 percent of their respective pre-European extents (Government of Western Australia 2013).

The application area is mapped as Beard Vegetation Association 968, 998 and 1001, which retain approximately 9 796 hectares (7 percent), 19 373 hectares (38 percent) and 14 152 hectares (25 percent) of their respective pre-European extents within the Swan Coastal Plain IBRA Bioregion.

The area is mapped as Heddle Vegetation Complex Karrakatta Complex Central and South, which retains approximately 12 789 hectares (26 percent) of its pre-European extent within the Swan Coastal Plain IBRA Bioregion.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 percent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001). Within constrained areas (i.e. areas of urban development in cities and major towns) on the Swan Coastal Plain, the target for representation of the pre-clearing extent of a particular native vegetation complex is 10 percent (EPA 2006). The area under application is classified as a constrained area on the Swan Coastal Plain.

Mapped Beard Vegetation Association 968, which has less than 10 percent vegetation remaining, is mapped over less than 0.1 hectares of the application area. A DEC site inspection (2013) did not identify any vegetation representative of this association.

Given the degraded condition of the vegetation under application, it is not likely to be a significant remnant.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Swan Coastal Plain	1 501 222	587 708	39	35
Shire*				
City of Rockingham	26 335	7 994	30	10
Beard Vegetation Association in Bioregion*				
968	136 188	9 796	7	16
998	50 868	19 373	38	41
1001	57 410	14 152	25	6
Hedde Vegetation Complex **				
Karrakatta Complex Central and South	49 735	12 789	26	6

\* Government of Western Australia 2013

\*\* Hedde et al. 1980

#### Methodology

##### References:

Commonwealth of Australia 2001

DEC 2013

EPA 2006

Government of Western Australia 2013

Hedde et al. 1980

GIS Databases:

- Bush Forever sites

- Hedde Vegetation Complexes

- Perth Metropolitan Area Central 15cm Orthomosaic - Landgate 2012

- Pre-European Vegetation

#### (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 numerous watercourses and wetlands within the local area (10 kilometre radius). The closest of these is a major drain, which is located approximately 85 metres from the application area.

There were no mapped watercourses or wetlands within the application area and no watercourses were observed during a DEC site inspection (2013).

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

#### Methodology

##### References:

DEC 2013

Western Australian Herbarium 1998

GIS Databases:

- 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 soil mapped over the application area is JK9, which Northcote et al. (1960-1968) describes as undulating dune landscape with some steep dune slopes and underlain by aeolianite at depth: chief soils are brown sands. Associated are siliceous sands on the deeper dunes, especially on the western side of the unit; and leached sands on the more subdued dunes, especially on the eastern side of the unit.

The mean annual rainfall of the application area is 900mm. Given the generally porous nature of the soil, significant water erosion is unlikely to occur.

The main land degradation risk associated with this sandy soil type is wind erosion. Without vegetation cover, the proposed clearing may result in land degradation and may be at variance to this principle.

Wind erosion management practises would manage and mitigate the impacts of the proposed clearing.

**Methodology** References:  
Northcote et al. 1960-1968  
GIS Databases:  
- Mean annual rainfall  
- 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 may be at variance to this Principle**

There are four DEC managed nature reserves and numerous Bush Forever sites located partially and wholly within the local area (10 kilometre radius). The application area is located within close proximity to Bush Forever site 349 - Leda and Adjacent Bushland, Leda. Leda Nature Reserve is located within the Leda Bush Forever site.

This nature reserve and Bush Forever site are separated from the application area by a major road. Therefore, the proposed clearing is unlikely to impact these areas through the spread of weeds and dieback.

The vegetation under application forms part of an ecological linkage (Del Marco et al. 2004), which the City of Rockingham recognises as important to retain and protect (City of Rockingham 2002). The vegetation under application has the potential to provide an ecological corridor to facilitate fauna movement between areas of vegetation to the north and south, including the Bush Forever site and Leda Nature Reserve. However, given the major road dividing these areas, the effectiveness of this corridor is likely to be limited for ground dwelling species.

Although the road dividing the Bush Forever site and the application area may reduce the value of the ecological linkage for ground dwelling fauna, the vegetation under application is still likely to assist in the movement of avian fauna across the landscape.

The vegetation under application contributes to connectivity across the landscape and the proposed clearing will increase the distance fauna has to negotiate between remnant patches of vegetation.

Given the above, the proposed clearing may be at variance.

To address the residual environmental impacts identified in this assessment the applicant will place 5 hectares of good to very good (Keighery 1994) condition vegetation within a conservation covenant to offset the loss of the 5 hectares of vegetation in degraded (Keighery 1994) condition which is proposed to be cleared under this application.

**Methodology** References:  
City of Rockingham 2002  
Del Marco et al. 2004  
Keighery 1994  
GIS Databases:  
- Bush Forever sites  
- DEC managed lands

**(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**

There are no mapped watercourses or wetlands within the application area. The closest watercourse is a major drain, which is located approximately 85 metres from the application area. Given there is no surface water

within the application area, the proposed clearing is not likely to impact surface water.

The groundwater salinity within the application area is mapped as 500-1000 milligrams per litre of Total Dissolved Solids (TDS). This level of groundwater salinity is considered to be marginal. Given this, the proposed clearing is not likely to impact on groundwater quality.

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

**Methodology** GIS Databases:  
- Groundwater, Salinity  
- Hydrography, Linear

**(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**  
There are no mapped watercourses or wetlands within the application area. The closest watercourse is a major drain, which is located approximately 85 metres from the application area.

The soil mapped over the application area is JK9, which Northcote et al. (1960-1968) describes as undulating dune landscape with some steep dune slopes and underlain by aeolianite at depth: chief soils are brown sands. Associated are siliceous sands on the deeper dunes, especially on the western side of the unit; and leached sands on the more subdued dunes, especially on the eastern side of the unit.

Given the distance to the nearest watercourse or wetland, and the location of the site on a sandy rise, it unlikely that the proposed clearing will cause or exacerbate the incidence of flooding. Therefore the proposed clearing is not likely to be at variance to this principle.

**Methodology** References:  
Northcote et al. 1960-1968  
GIS Databases:  
- Hydrography, Linear  
- Soils, Statewide  
- Topography, Statewide

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

**Comments**  
To address the residual environmental impacts identified in this assessment the applicant will place 5 hectares of good to very good (Keighery 1994) condition vegetation within a conservation covenant to offset the loss of the 5 hectares of vegetation in degraded which is proposed to be cleared under this application.

Lot 1355 on Deposited Plan 144537, Baldivis, is zoned as Public Purposes (Special Uses) under the City of Rockingham Town Planning Scheme No. 2.

The applicant has provided development approval for extractive industry on Lot 1355 on Deposited Plan 144537, Baldivis.

The application area is located within the Rockingham Groundwater Water Area covered by the Rights in Water and Irrigation Act 1914. The applicant has a Department of Water licence to take groundwater for the purpose of irrigation for watering of lawns and gardens associated with the cemetery. The applicant has advised that dewatering is not required and groundwater will not be used in association with the extractive industry.

No public submissions have been received in response to this application.

**Methodology** References:  
City of Rockingham 2013  
Keighery 1994  
GIS Databases:  
- Environmentally Sensitive Areas  
- ICMS Polygons  
- RIWI Act areas

**4. References**

- City of Rockingham (2002) Rockingham Greening Plan. City of Rockingham, Western Australia.
- City of Rockingham (2013) Personal communication with Scott Lambie (City of Rockingham) on 10/06/2013. City of Rockingham, Western Australia.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Commonwealth of Australia (2012) EPBC Act referral guidelines for three threatened black cockatoo species, Canberra.

- DEC (2006) Fauna Notes: *Dasyurus geoffroii*, Chuditch, Western Quoll. Department of Environment and Conservation, Western Australia.
- DEC (2007 - ) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed 08/05/2013.
- DEC (2013) Site inspection report for CPS 5586/1 - Lot 1355 Baldivis Road, Baldivis. Site inspection completed 31/05/2013. Department of Environment and Conservation, Western Australia (A638354).
- Del Marco, A., Miles, C., Taylor, R., Clarke, K. and Savage, K. (2004) Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Region - Edition 1. Western Australian Local Government Association, West Perth.
- DSEWPC (2013) Species Profile and Threats Database. <http://www.environment.gov.au/cgi-bin/sprat>. Department of Sustainability, Environment, Water, Population and Community, Canberra.
- 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.
- Government of Western Australia. (2013). 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
- 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.
- 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.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/>

## 5. 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)