



## CLEARING PERMIT

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

### PERMIT DETAILS

Area Permit Number: 6299/1

File Number: DER2014/002395-1

Duration of Permit: From 22 January 2015 to 22 January 2017

### ADVICE NOTE:

The funds referred to in Condition 4 of this Permit are intended for contributing towards purchasing 14 hectares of black cockatoo foraging habitat on the Swan Coastal Plain to be amalgamated into the conservation estate.

### PERMIT HOLDERS

Federation Custodian Pty Ltd

ISPT Pty Ltd

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 504 on Diagram 94039, Halls Head.

### AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 6.33 hectares of native vegetation within the area cross hatched yellow on the attached Plan 6299/1.

### CONDITIONS

#### 1. Type of clearing authorised

Clearing shall be conducted from west to east to provide an escape path for terrestrial fauna.

#### 2. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

#### 3. Dieback and weed control

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*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared;
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared;

#### 4. Monetary contributions to a fund maintained for the purpose of establishing or maintaining vegetation (offset)

Prior to undertaking any clearing authorised under this Permit and no later than 17 June 2015, the Permit Holder shall provide documentary evidence to the CEO that funding of \$182,994 has been transferred to the Department of Environment Regulation for the purpose of establishing or maintaining vegetation.

## DEFINITIONS

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

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

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

**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;

**weed/s** means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



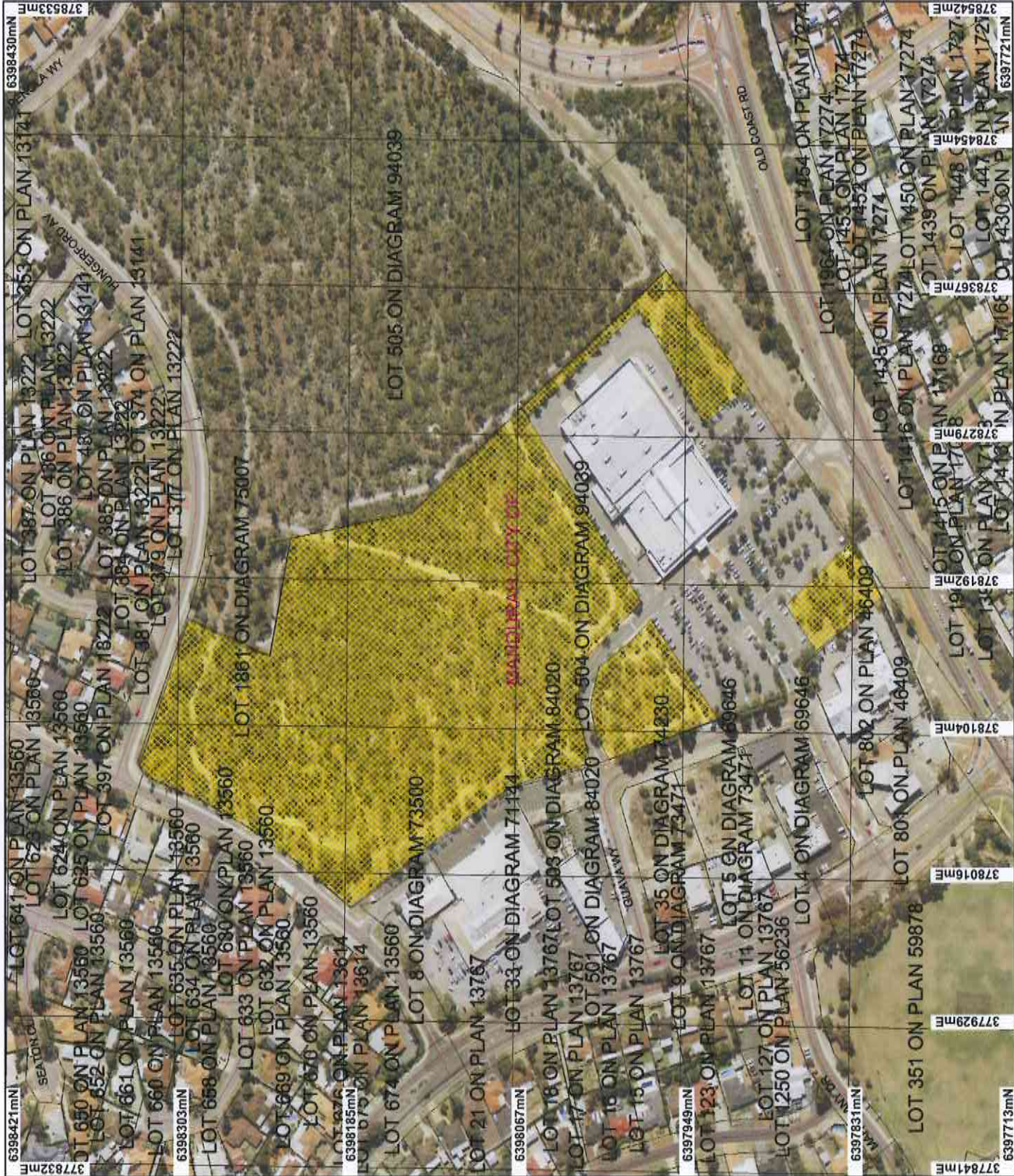
M Warnock  
SENIOR MANAGER  
CLEARING REGULATION

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

23 December 2014



# Plan 6299/1



## LEGEND

- Local Government Authorities
  - Road Centrelines
  - Cadastre
  - Clearing Instruments
  - Areas Approved to Clear
- Perth Metropolitan Area South 15cm Orthomosaic - Lanigate 2012



0 100 m

Scale 1:3396

(Approximate when reprojected 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.

*Mantlebank* Date 23/12/14

M. Warwick

Officer with delegated authority under Section 26 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.



Government of Western Australia  
Department of Environment Regulation  
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# Clearing Permit Decision Report

Government of Western Australia  
Department of Environment Regulation

## 1. Application details

### 1.1. Permit application details

Permit application No.: 6299/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Federation Custodian Pty Ltd and ISPT Pty Ltd

### 1.3. Property details

Property: LOT 504 ON DIAGRAM 94039 (House No. 14 GUAVA HALLS HEAD 6210)

Local Government Area: City of Mandurah

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 23 December 2014

## 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 6 is described as medium woodland comprising tuart and jarrah (Shepherd et al, 2001).	The clearing of 6.33 hectares of native vegetation within Lot on Diagram 94039, Halls Head, is for the purpose of expanding the Halls Head Shopping Centre.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition and description of the vegetation was determined via a site inspection undertaken by the Department of Environment Regulation (2014), a site assessment undertaken by 360 Environmental (2014) and a Flora and Vegetation Survey undertaken by ENV Australia (2010).
Hedde Vegetation Cottesloe Complex Central and South is comprised of mosaic of woodland of Eucalyptus gomphocephala (Tuart) and open forest of Eucalyptus gomphocephala (Tuart) - Eucalyptus marginata (Jarrah) - Corymbia calophylla (Marri) with closed heath on the Limestone outcrops (Hedde et al, 1980).		To  Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The vegetation assessment undertaken by 360 Environmental (2014) identified one vegetation unit on site.  BaEm: Low woodland of Banksia attenuata, Eucalyptus marginata and Allocasuarina fraseriana over Acacia pulchella, Hibbertia hypericoides, Conostylis aculeata, Hardenbergia comptoniana, Gompholobium tomentosum, Xanthorrhoea preissii and Lyginia barbata.

## 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 proposed clearing within Lot 504 on Diagram 94039, Halls Head, is for the purpose of expanding the Halls Head Shopping Centre.

A flora survey undertaken by ENV Australia in 2010 identified a total of 34 native flora species and nine introduced species within the application area. The species richness of the survey area is considered low, with an average of 26 species per quadrat (360 Environmental, 2014). The condition of the vegetation under application ranges from completely degraded to very good (Keighery, 1994, DER, 2014). Historical disturbance in the form of firebreaks, tracks and dumped rubbish is evident on site (DER, 2014). In these areas invasive grasses, primarily veldt grass (*Erharta calycina*), are prominent (DER, 2014).

Several rare and priority flora species have been recorded within the local area (10 kilometre radius). Two flora surveys have been undertaken within the application area. One flora survey was undertaken in December 2009 and a targeted rare flora survey was undertaken in September 2010. These surveys did not identify any rare or priority flora species on site (ENV Australia, 2010 and 2010a).

The closest priority ecological community (priority 1) is located approximately one kilometre east of the application area and is known as 'Subtropical and Temperate Coastal Saltmarsh'.

A flora survey did not identify any threatened or priority ecological communities within the application area (ENV Australia, 2010).

The application area includes vegetation that is the preferred foraging habitat for *Calyptorhynchus banksii* subsp. *naso* (forest red-tailed black-cockatoo), *Calyptorhynchus baudinii* (Baudin's cockatoo) and *Calyptorhynchus latirostris* (Carnaby's cockatoo), all listed as 'rare or likely to become extinct' under the Wildlife Conservation Act 1950.

The area of proposed clearing may also provide suitable habitat for small ground dwelling indigenous fauna such as *Isodon obesulus* subsp. *fusciventer* (quenda). To minimise impacts to terrestrial fauna the proponent will be required to undertake clearing from west to east to provide an escape path for fauna into an adjacent remnant east.

There is approximately 10 per cent native vegetation remaining within the local area of the proposed clearing (10 kilometre radius). Within constrained areas (areas of urban development in cities and major towns) on the Swan Coastal Plain, the threshold for representation of the pre-clearing extent of a particular native vegetation complex is 10 per cent (EPA, 2006). The area under application is classified as a constrained area.

The proposed clearing will increase the risk of weeds and dieback spreading into an adjacent vegetated area east. Weed and dieback management practices will assist in mitigating the spread of weeds and dieback into this area.

The vegetation under application provides suitable habitat for conservation significant fauna, however given the lack of species richness on site and presence of invasive veldt grass (*Erharta calycina*), it is not likely to comprise a high level of biological diversity.

The proposed clearing is not likely to be at variance to this Principle.

#### Methodology

##### References:

- ENV Australia (2010)
- ENV Australia (2010a)
- DER (2014)
- Keighery (1994)
- 360 Environmental (2014)
- EPA (2006)

##### GIS Databases:

- SAC Bio Datasets (accessed December 2014)

#### **(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**

Several fauna species of conservation significance have been recorded within the local area (10 kilometre radius), including *Calyptorhynchus banksii* subsp. *naso* (forest red-tailed black-cockatoo), *Calyptorhynchus baudinii* (Baudin's cockatoo) *Calyptorhynchus latirostris* (Carnaby's cockatoo), *Phascogale tapoatafa* subsp. *tapoatafa* (Southern brush-tailed phascogale), *Myrmecobius fasciatus* (numbat), *Pseudocheirus occidentalis* (Western ringtail possum), *Dasyurus geoffroii* (chuditch), *Isodon obesulus* subsp. *fusciventer* (quenda), *Lerista lineata* (lined skink) and *Ctenotus ora* (coastal plains skink) (DEC, 2007-).

The remaining populations of the numbat are in eucalypt forests and woodlands dominated by *Eucalyptus marginata*, *Corymbia calophylla* and *Eucalyptus wandoo* (DotE, 2014). Although some juvenile *Eucalyptus marginata* were identified on site (DER, 2014), the application area is predominantly comprised of low banksia woodland (DER, 2014) and is therefore unlikely to provide significant habitat for numbats.

Chuditch have a preference for eucalypt forest (especially *Eucalyptus marginata*), dry woodland and mallee shrublands and utilise horizontal hollow logs or earth burrows as dens or refuge. To be suitable as den sites, logs must have a diameter of at least 30 centimetres but usually greater than 50 centimetres, a hollow diameter of 7 to 20 centimetres and generally 1 metre long (DotE, 2014a). Suitable den sites were not found on site, therefore the application area is not likely to provide significant habitat for this species.

The flora species identified within the application are not considered to be preferred habitat for Western ringtail Possums, therefore the proposed clearing is unlikely to impact on this species.

Forest red-tailed black cockatoo, Baudin's cockatoo and Carnaby's cockatoo forage on the seeds, nuts and flowers of a large variety of plants including proteaceous species (banksia, hakea, grevillea), as well as allockasuarina and eucalyptus species, *Corymbia calophylla* and a range of introduced species (Valentine and Stock, 2008). The native feeding records on the Swan Coastal Plain reveal that Banksia species account for nearly 50 per cent for Carnaby's cockatoo, with the majority of records from *Banksia attenuata* (Shah 2006). This species and the co-dominant *Banksia menziesii* are considered essential native food sources for black cockatoos (Shah 2006).

Basic ecological theory, expert opinion and recent evidence, suggests that the remaining native and pine plantation foraging habitat on the Swan Coastal Plain is just sufficient to support the current population of Carnaby's cockatoo.

Therefore, it is considered that any reduction in foraging habitat will result in a reduction in the carrying capacity of the region and a decline in the population of this species. A recent study involving population analysis modelling suggests that if clearing continues to occur at its current rate without effective habitat restoration, the species is likely to decline to extinction in less than 20 years (Cockerill et al, 2013).

The application area is comprised largely of *Banksia attenuata* low woodland in a very good to completely degraded (Keighery, 1994) condition (DER, 2014), therefore it is likely that the 6.33 hectares of native vegetation under application provides significant foraging habitat for the three abovementioned species of black cockatoo.

A black cockatoo fauna assessment undertaken by ENV Australia (2010b) determined that the application area is not suitable as a roosting site for black cockatoos given the lack of large mature highly branched trees. Similarly, the trees on site aren't large enough to provide hollows suitable as breeding habitat for black cockatoos or habitat for Southern brush-tailed phascogale. 'Breeding habitat' is defined as trees of species known to support breeding within the range of the species which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For most tree species, suitable DBH is 500 millimetres (Commonwealth of Australia, 2012).

The vegetation under application may also provide suitable habitat for ground dwelling indigenous fauna such as quenda, lined skink and coastal plains skink. The proponent will be required to commence works from west to east, which will allow any ground dwelling fauna on site to move into the 10 hectare remnant immediately east of the application area.

Given the above, the proposed clearing is at variance to this Principle. To offset residual impacts to significant fauna habitat, the proponent will be required to contribute funds towards the purchase of 16 hectares of high quality remnant vegetation to be secured in conservation estate.

**Methodology**    References:  
-ENV Australia (2010b)  
-Cockerill et al (2013)  
-DER (2014)  
-DotE, 2014a  
-DotE (2014)  
-Keighery (1994)  
-Shah (2006)  
-Commonwealth of Australia (2012)  
-Valentine and Stock (2008)  
-DEC (2007- )

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

**Comments**    **Proposal is not at variance to this Principle**  
The closest rare flora to the application area has been mapped 7.7 kilometres south east. This species is a tuberous perennial herb with a preference for brown loamy clay and winter wet swamps (Western Australian Herbarium, 1998). This habitat is not consistent with that found on site, and a targeted flora survey undertaken in September 2010 did not identify this species on site (ENV Australia, 2010a).

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

**Methodology**    References:  
-Western Australian Herbarium (1998- )  
-ENV Australia (2010a)  
  
GIS Databases:  
-SAC Bio Datasets (accessed December 2014)

**(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 at variance to this Principle**  
The closest threatened ecological community (TEC) has been mapped approximately nine kilometres south east of the application area and is known as 'Herb rich saline shrublands in clay pans'. The vegetation characteristics within the application area do not fit the description of this TEC and a flora survey undertaken by ENV Australia (2010) did not identify the presence of any TECs on site.

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

**Methodology** References:  
-ENV Australia (2010)

GIS Databases:  
-SAC Bio Datasets (accessed December 2014)

**(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**  
There is approximately 10 per cent native vegetation remaining in the local area (10 kilometre radius).

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

Within constrained areas (areas of urban development in cities and major towns) on the Swan Coastal Plain, the threshold for representation of the pre-clearing extent of a particular native vegetation complex is 10 per cent (EPA, 2006). The area under application is classified as a constrained area.

The City of Mandurah, Beard Vegetation Association (6) and Heddle Vegetation (Cottesloe Complex Central and South) retain approximately 49, 25 and 39 per cent of their pre-European vegetation respectively. These figures are all greater than the abovementioned 10 per cent threshold.

The application area contains significant foraging habitat for black cockatoos and suitable habitat for ground dwelling indigenous fauna. Therefore the application area has environmental value, however given the vegetation extents outlined above, relative to the 10 per cent threshold in constrained areas, 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 (%)
<b>IBRA Bioregion*</b>				
Swan Coastal Plain	1,501,222	507,709	39	35
<b>Shire*</b>				
City of Mandurah	16,797	8,246	49	44
<b>Beard Vegetation Association</b>				
6	56,343	14,018	25	36
<b>Heddle Vegetation</b>				
Cottesloe Complex Central and South	44,818	17,528	39	13

**Methodology** References:  
-Commonwealth of Australia (2001)  
-EPA (2006)  
-Government of Western Australia (2013)  
-Heddle et al (1980)

GIS Databases:  
-NLWRA, Current Extent of Native 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 at variance to this Principle**  
The closest wetland or watercourse to the application area is a multiple use wetland mapped approximately 475 metres east of the application area.

Given the distance to the nearest mapped hydrological features, and that no watercourses, wetlands or riparian vegetation was identified during a site inspection of the application area (DER, 2014), the vegetation under application is not considered to be growing in association with a watercourse or wetland.

The proposed clearing is not at variance to this Principle.

**Methodology** References:  
-DER (2014)



GIS Databases:  
-Hydrography, linear  
-Hydrography, hierachy  
-Geomorphic Wetlands, Swan Coastal Plain

**(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 application area have been mapped by Northcote et al (1960-68) as undulating dune landscape underlain by aeolianite which is frequently exposed with small swales of estuarine deposits. Chief soils are siliceous sands with smaller areas of brown sands and leached sands in the wetter sites. Associated are various acid peat soils in the swales (Northcote et al, 1960-68). Siliceous sands are highly susceptible to wind erosion, however the proponent has advised that management measures will be put in place to ensure that sand mobilisation is minimal, including dampening soils during dry months.

Sandy and gravelly soils are highly permeable, therefore water erosion resulting from the proposed clearing is unlikely, particularly given the moderate annual rainfall (800 millimetres) of the local area (10 kilometre radius) and distance to nearest watercourse or wetland (475 metres).

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

**Methodology** References:  
-Northcote et al (1960-68)

GIS Databases:  
-SAC Bio Datasets (accessed December 2014)  
-Rainfall, Mean Annual

**(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 area to the proposed clearing is an unnamed Nature Reserve located approximately one kilometre east. Given the distance and lack of connectivity between this reserve and the application area, it is not likely that the proposed clearing will impact on this conservation area.

The proposed clearing is not likely to be at variance to this Principle.

**Methodology** GIS Databases:  
-Parks and Wildlife Tenure

**(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 at variance to this Principle**

Given the distance to the closest mapped watercourse or wetland on site (475 metres) and lack of connectivity between the application area and the vegetation associated with this wetland, the proposed clearing will not impact on the quality of surface water.

Groundwater salinity mapped within the application area is between 500 and 1000 milligrams per litre (marginal). Given this low salinity level, it is considered that the proposed clearing will not lead to a perceptible rise in the water table and thus an increase in groundwater salinity levels.

The proposed clearing is not at variance to this Principle.

**Methodology** GIS Databases:  
-Hydrography, linear  
-Hydrography, hierachy  
-Geomorphic Wetlands, Swan Coastal Plain  
-SAC Bio Datasets (accessed December 2014)

**(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.**

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

Given the lack of wetlands or watercourses on site and presence of highly permeable soils, the proposed clearing will not cause or exacerbate flooding.



The proposed clearing is not at variance to this Principle.

**Methodology** GIS Databases:  
-Hydrography, linear  
-Hydrography, hierachy  
-Geomorphic Wetlands, Swan Coastal Plain

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

##### **Comments**

No submissions have been received from the public for the proposed clearing.

The application area is zoned 'precinct development' under the town planning scheme.

The application area falls within an Aboriginal Site of Significance. It is the proponent's responsibility to comply with the Aboriginal Heritage Act 1972 and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

The former Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC), now Department of the Environment (DotE) issued the proponent approval to clear for the shopping centre expansion in 2011. The approval includes the requirement to provide a monetary offset for the purchase of 34 hectares of land (to be added to conservation estate) containing suitable habitat for black cockatoos (DSEWPaC, 2011).

To offset the residual impacts to conservation significant fauna, the proponent will be required to contribute funds towards the purchase of 16 hectares of high quality remnant vegetation to be secured in conservation estate. The proponent will still be required to fulfil the additional requirements imposed within the DotE's approval. The 16 hectare figure was determined via the offset calculator and is based on a known site within a 40 kilometre radius of the application area.

The proponent has received development approval from the City of Mandurah for the proposed shopping centre expansion. The approval is subject to conditions (City of Mandurah, 2014).

**Methodology** References:  
-DSEWPaC (2011)  
-City of Mandurah (2014)

GIS Databases:  
-Aboriginal Sites of Significance  
-Town Planning Scheme Zones

#### **4. References**

- City of Mandurah (2014) Planning Approval subject to conditions. Additional Information for CPS 6299/1. DER Ref: A844531
- Cockerill, A., Lambert, T, Conole, L. and Pickett, E. (2013). Carnaby's Cockatoo Population Viability Analysis Model Report. Report funded by the Department of Sustainability, Environment, Water, Population, and Communities through the Sustainable Regional Development Program. Parsons Brinckerhoff, Perth. Commissioner of Soil and Land Conservation (2014) COS 5966/1 DG Pork Holdings, Lot 2 on Diagram 76597, Parkfield, Shire of Harvey, Western Australia. DER Ref: A727840.
- 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 (2007 - ) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dec.wa.gov.au/>. Accessed November 2014.
- DER (2014) Site Inspection Report for Clearing Permit Application CPS 6299/1. Site inspection undertaken 10/11/2014. Department of Environment Regulation, Western Australia (DER Ref A838210).
- Department of the Environment (2014). Myrmecobius fasciatus in Species Profile and Threats Database, Department of the Environment, Canberra. Available from :<http://www.environment.gov.au/sprat>.
- Department of the Environment (2014a). Myrmecobius fasciatus in Species Profile and Threats Database, Department of the Environment, Canberra. Available from :<http://www.environment.gov.au/sprat>.
- DSEWPaC (2011) Approval for Centro Halls Head Shopping Centre – Stages 2 and 3 expansion (EPBC 2010/5636). Additional Information for Clearing Permit Application CPS 6299/1 (DER Ref A814511).
- 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.
- ENV Australia (2010) Flora and Vegetation Survey of Lot 504 Hungerford Avenue, Halls Head. Additional Information for Clearing Permit Application CPS 6299/1 (DER Ref A814511)
- ENV Australia (2010a) Lot 504 Guava Way, Halls Head Targeted Declared Rare Flora Survey. Additional Information for Clearing Permit Application CPS 6299/1.
- ENV Australia (2010b) Lot 504 Guava Way, Halls Head Black Cockatoo Habitat Assessment. Additional Information for Clearing Permit Application CPS 6299/1.

- Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). 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.
- 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., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Valentine, L.E. and Stock, W. (2008) Food Resources of Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) in the Gnangara Sustainability Strategy Study Area. Edith Cowan University and Department of Environment and Conservation. December 2008.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <http://florabase.dpaw.wa.gov.au/> (Accessed December 2014).
- 360 Environmental (2014) Application for a Clearing Permit: Assessment Report – Halls Head Shopping Centre Expansion. Additional Information for Clearing Permit Application CPS 6299/1 (DER Ref A814511).