



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5759/1
Permit Holder:	Capricorn Investment Group Pty Ltd and Yanchep Sun City Pty Ltd
Duration of Permit:	21 June 2014 – 21 June 2019

ADVICE NOTE:

The funds referred to in condition 8 of this permit are intended for contributing towards improving the environmental values of Bush Forever sites with similar environmental values on the Swan Coastal Plain through rehabilitation and or revegetation.

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 constructing a road.

2. Land on which clearing is to be done

Lot 661 on Plan 49302 (Reserve 41784), Yanchep
Lots 500 on Deposited Plan 70083 (Reserve 48603), Yanchep
Lots 501 on Deposited Plan 70083 (Reserve 29352), Yanchep
Lots 502 on Deposited Plan 70083 (Reserve 29352), Yanchep
Lots 503 on Deposited Plan 70083 (Reserve 12439), Yanchep
Lots 504 on Deposited Plan 70083 (Reserve 12439), Yanchep
Lots 509 on Deposited Plan 70083, Yanchep

3. Area of Clearing

The Permit Holder must not clear more than 0.87 hectares of native vegetation within the area hatched yellow on attached Plan 5759/1.

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. Period in which clearing is authorised

The Permit Holder shall not clear native vegetation unless undertaking works within three months of the authorised clearing being undertaken.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

6. 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:

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

7. 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*:

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

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

Prior to undertaking any clearing authorised under this permit, the Permit Holder shall provide documentary evidence to the CEO that funding of \$25,000 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:

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; and

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*

22 May 2014

Plan 5759/1



- LEGEND**
- Local Government Authorities
 - Road Centrelines
 - Cadastral
 - Clearing Instruments
 - Areas Approved to Clear
 - Perth Metropolitan North 15cm Orthomosaic - Landgate 2011

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



Scale 1:3825
 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.

M. Waincock Date 22/5/14
 M. Waincock

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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Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 5759/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Capricorn Investment Group Pty Ltd & Yanchep Sun City

1.3. Property details

Property: LOT 509 ON PLAN 70083 (YANCHEP 6035)
LOT 661 ON PLAN 49302 (House No. 620L TWO ROCKS YANCHEP 6035)
LOT 500 ON PLAN 70083 (House No. 91 CAPRICORN YANCHEP 6035)
LOT 501 ON PLAN 70083 (House No. 82 CAPRICORN YANCHEP 6035)
LOT 502 ON PLAN 70083 (House No. 81 CAPRICORN YANCHEP 6035)
LOT 504 ON PLAN 70083 (House No. 1 BRAZIER YANCHEP 6035)
LOT 503 ON PLAN 70083 (House No. 5 BRAZIER YANCHEP 6035)
Local Government Area: City of Wanneroo

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.87		Mechanical Removal	Road construction or maintenance

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 22 May 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 1026 is described as shrublands of <i>Acacia rostellifera</i> , <i>A. cyclops</i> (in the south) & <i>Melaleuca cardiophylla</i> (in the north) thicket and shrublands comprising <i>Acacia lasiocarpa</i> & <i>Melaleuca systema</i> heath (Shepherd et al 2001). Hedde vegetation Quindalup Complex is a coastal dune complex containing mainly two alliances; the strand and fore-dune alliance and the mobile and stable dune alliance. Local variations include the low closed forest of <i>Melaleuca lanceolata</i> , <i>Callitris preissii</i> and closed scrub of <i>Acacia rostellifera</i> (Hedde et al. 1980).	Clearing of 0.87 hectares of native vegetation for the purpose of constructing a road.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994) To Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The vegetation under application is comprised of a low coastal dune shrubland dominated by <i>Olearia axillaris</i> , <i>Melaleuca</i> sp. (forms several small dense thickets), <i>Acacia</i> sp., <i>Conostylis aculeata</i> , <i>Spyridium globulosum</i> and <i>Acanthocarpus preissii</i> (DER, 2013). A flora and vegetation survey of the application area identified two floristic communities known as FCT 29a 'Coastal shrublands on shallow sands' and FCT 29b 'Acacia shrublands on taller dunes' (Coffee Environments, 2009). The vegetation and clearing description was obtained via a site inspection undertaken on 7 October 2013 (DER, 2013) and a flora and vegetation survey undertaken by Coffee Environments (2009).

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**
This application proposes to clear 0.87 hectares of native vegetation within Lots 500, 501, 502, 503, 504 and 509 on Deposited Plan 70083 and Lot 661 on Deposited Plan 49302, Yanchep, for the purpose of constructing a road. The vegetation under application ranges from very good to degraded (Keighery, 1994) in condition, with the majority of the vegetation in a very good (Keighery, 1994) condition (DER, 2013).

The application area is comprised of a low coastal dune shrubland dominated by *Olearia axillaris*, *Melaleuca* sp. (forms several small dense thickets), *Acacia* sp., *Conostylis aculeata*, *Spyridium globulosum* and *Acanthocarpus preissii* (DER, 2013). Weed invasion occurs within the disturbed areas along the edge of Brazier Rd and in the form of vehicle and walking tracks through the application area. These areas are considered to be in a degraded (Keighery, 1994) condition.

Several Priority flora species have been recorded in the local area (10 kilometre radius). The closest of these is a priority 2 species that has been mapped approximately 850 metres south west of the application area on the same soil and vegetation type. A flora and vegetation survey undertaken by Coffee Environments in October 2009 did not identify the presence of any rare or priority flora within the application area.

There are no priority ecological communities mapped within the local area (10 kilometre radius). The flora and vegetation survey identified two floristic communities known as FCT 29a 'Coastal shrublands on shallow sands' and FCT 29b 'Acacia shrublands on taller dunes' within the application area (Coffee Environments, 2009). These floristic communities are not listed as either priority ecological communities or threatened ecological communities.

Several fauna species of conservation significance have been recorded within the local area (10 kilometre radius). A fauna survey (Coffee Environments, 2009) determined that the vegetation under application may contain habitat for quenda (*Isoodon obesulus*), listed as priority 5 under the Wildlife Conservation Act 1950. Given the relatively small size of the proposed clearing, and that the two vegetation types (Quindalup Complex and Beard Vegetation Association 1007) mapped within the application area retain approximately 48 per cent and 71 per cent of their pre-European vegetation extent respectively, it is unlikely that the vegetation under application provides significant habitat for quenda.

The local area (10 kilometre radius) is well vegetated with approximately 70 per cent native vegetation remaining.

The area under application is within Bush Forever Site 397, known as 'Coastal Strip from Wilbinga to Mindarie'. This Bush Forever site is part of a regionally significant fragmented bushland linkage (Government of Western Australia, 2000).

The disturbance caused by the proposed clearing will increase the likelihood of weeds spreading into adjacent vegetated areas. Weed management practices will assist in mitigating the risk of spreading weeds.

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

Methodology

References:

- Keighery (1994)
- DER (2013)
- Coffee Environments (2009)
- Government of Western Australia (2000)
- Government of Western Australia (2013)

GIS Databases:

- SAC Bio Datasets (Accessed October 2013)
- NLWRA, Extent of Vegetation Remaining

(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

Several conservation significant fauna species have been recorded within the local area (10 kilometre radius). These include, *Calyptorhynchus latirostris* (Carnaby's cockatoo), *Dasyurus geoffroi* (chuditch), *Merops ornatus* (rainbow bee-eater), *Morelia spilota* subsp. *imbricata* (carpet python), *Bothriembryon perobesus* (land snail), *Neelaps calonotos* (black-striped snake), *Synemon gratiosa* (graceful sunmoth), and *Isoodon obesulus* subsp. *fusciventer* (quenda) (DEC, 2007-).

The vegetation under application is not likely to provide foraging, nesting or roosting habitat for black cockatoos given the lack of preferable foraging habitat and large mature trees on site (DER, 2013).

A fauna survey determined that the coastal shrubland under application may provide suitable habitat for quenda, particularly within the most dense areas (Coffee Environments, 2009). This species is listed as priority 5 under the Wildlife Conservation Act 1950. Given the relatively small size of the proposed clearing, and that the two vegetation types (Quindalup Complex and Beard Vegetation Association 1007) mapped within the application area retain approximately 48 per cent and 71 per cent of their pre-European vegetation extent respectively, it is unlikely that the vegetation under application provides significant habitat for quenda, or any other ground dwelling indigenous fauna.

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

Methodology References:
-DEC (2007-)
-Government of Western Australia (2013)
-DER (2013)
-Coffee Environments (2009)

GIS Databases:
-SAC Bio Datasets (Accessed October 2013)

(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 mapped rare flora to the application area is approximately 800m south east on the same vegetation and soil type. This species is a Mallee with a preference for shallow soils over limestone and slopes or gullies comprised of limestone ridges and outcrops (Western Australian Herbarium, 1998-).

A flora and vegetation survey was undertaken by Coffee Environments in October 2009. The survey did not identify the presence of any rare flora within the application area.

The proposed clearing is not at variance to this Principle.

Methodology References:
-Western Australian Herbarium (1998-)
-Coffee Environments (2009)

GIS Databases:
-SAC Bio Datasets (Accessed October 2013)

(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) to the application area is mapped 3.9 kilometres east. This TEC is known as Floristic Community Type (FCT) 26a, 'Melaleuca huegelii and Melaleuca systema shrublands on limestone ridges'.

A flora and vegetation survey of the application area identified two floristic communities known as FCT 29a 'Coastal shrublands on shallow sands' and FCT 29b 'Acacia shrublands on taller dunes' (Coffee Environments, 2009). These floristic communities are not listed as threatened ecological communities.

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

Methodology References:
-Coffee Environments (2009)

GIS Databases:
-SAC Bio Datasets (Accessed October 2013)

(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 at variance to this Principle**
There is approximately 70 per cent vegetation remaining within 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). However, the application area is located within the 'constrained area' of the Perth Metropolitan Region (EPA, 2006). Within this area the Environmental Protection Authority (2006) provides for the reduction of vegetation complexes to a minimum of 10 per cent pre- European extent.

The mapped Beard Vegetation Association 1007 and Heddle vegetation Quindalup Complex retain approximately 71 and 48 per cent pre-European vegetation within the Swan Coastal Plain respectively. The City of Wanneroo retains 47 per cent pre-European vegetation.

The vegetation under application contains vegetation in a very good (Keighery, 1994) condition, that forms part of Bush Forever Site 397, however the vegetation is not within an area that has been extensively cleared.

The proposed clearing is not 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	578,708	39	35
Shire*				
City of Wanneroo	67,698	31,541	47	51
Beard Vegetation Association in Bioregion*				
1007	30,110	21,415	71	12
Heddlle Vegetation **				
Quindalup Complex	24,381	11,598	48	19.5
Government of Western Australia (2013) *				
Heddlle et al (1980)**				

Methodology References:
 -Government of Western Australia (2013)
 -Heddlle et al (1980)
 -Commonwealth of Australia (2001)

GIS Databases:
 -SAC Bio Datasets (Accessed October 2013)

(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 no mapped watercourses or wetlands within the area under application. The closest mapped water body is a Lake known as Loch McNess located approximately 4.8 kilometres east of the application area.

A site inspection of the application area in 2007 identified a small wetland area, comprising a closed sedgeland, directly adjacent to the application area (DEC, 2007).

The current application excludes the abovementioned sedgeland, and a recent site inspection did not identify the presence of riparian vegetation within the application area (DER, 2013).

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

Methodology References:
 -DEC (2007)
 -DER (2013)

GIS Databases:
 -Hydrography, linear
 -Hydrography, hierachy
 -SAC Bio Datasets (Accessed October 2013)

(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 soils within the application area have been mapped by Northcote et al (1960-68) as calcareous sands on the coastal dunes.

Sandy soils are highly susceptible to wind erosion, and if left exposed for any length of time post clearing, may result in appreciable land degradation.

Given the high permeability of sandy soils, it is not likely that the proposed clearing will result in water erosion.

The proposed clearing may be at variance to this Principle. The requirement to undertake works within three months of clearing will help to prevent wind erosion from causing appreciable land degradation.

Methodology References:
 -Northcote et al (1960-1968)

GIS Databases:
 -SAC Bio Datasets (Accessed October 2013)

(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 at variance to this Principle**
The area under application is within Bush Forever Site 397, known as 'Coastal Strip from Wilbinga to Mindarie'. This Bush Forever site is part of a regionally significant fragmented bushland linkage (Government of Western Australia, 2000).

The proposed clearing of 0.87 hectares will have a direct impact on the environmental values of this Bush Forever site, and may also indirectly impact this area through the spread and introduction of weed species.

Given the above, the proposed clearing is at variance to this Principle. To mitigate the impacts to this Bush Forever Site, the proponent has provided an offset package which comprises contributing funds towards the purchase of 1.74 hectares of remnant vegetation to be secured in conservation estate.

Methodology **References:**
-Government of Western Australia (2000)

GIS Databases:
-DEC 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 likely to be at variance to this Principle**
The closest mapped wetland or watercourse to the application area is a Lake known as Loch McNess located approximately 4.8 kilometres east of the application area. A site inspection of the application area in 2007 identified a small wetland area, comprising a closed sedgeland, directly adjacent to the application area (DEC, 2007). Given the relatively small size of the application area, it is not likely that the proposed clearing will cause deterioration in the quality of surface water.

Groundwater Salinity mapped within the application area is between 500 and 1000 milligrams per litre (marginal). It is not likely the proposed clearing will lead to a perceptible rise in the watertable and thus an increase in groundwater salinity levels.

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

Methodology **GIS Databases:**
-Hydrography, linear
-Hydrography, hierachy
-SAC Bio Datasets (Accessed October 2013)

(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 highly permeable nature of the soils on site (Northcote et al, 1960-68) and relatively small size of the application area, it is considered that the proposed clearing will not cause or exacerbate the incidence or intensity of flooding.

The proposed clearing is not at variance to this Principle.

Methodology **References:**
-Northcote et al, 1960-68

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

Comments

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

The proposed clearing falls within the Yanchep Groundwater Area proclaimed under the Rights in Water and Irrigation Act 1914. The Department of Water were advised of the proposed clearing and have not provided a response.

To mitigate the environmental harm identified in this assessment, the Department of Environment Regulation has approved the applicant's offset package which comprises contributing funds towards the purchase of 1.74 hectares of remnant vegetation to be secured in conservation estate.

The area under application was previously subject to a separate clearing permit application, whereby a permit was granted to the City of Wanneroo in 2009. The City of Wanneroo have since had this area removed from the permit (via an amendment), as the proponent is required to construct a road in this area as per the conditions of an approved structure plan. A condition of the original permit granted to the City of Wanneroo required that an appropriate offset proposal be provided.

The City of Wanneroo has advised that they support the application providing that an adequate offset is proposed, any clearing outside of the road reserve is rehabilitated to the specification and satisfaction of the City, conservation fencing is installed between the road reserve and the Bush Forever site, no drainage occurs within the Bush Forever site, adequate weed management is undertaken, and Development Approval is issued prior to the commencement of any works on site (City of Wanneroo, 2013).

Approval to commence development has been issued to the proponent by the Western Australian Planning Commission (WAPC, 2013) for the proposed works. The approval is subject to several conditions including the requirement of the proponent to prepare a rehabilitation management plan for the area of land cleared outside of the road reserve, to the specification of the City of Wanneroo, prior to the commencement of any site works.

A direct interest submission raising concerns over the proposed clearing has been received from the South West Aboriginal Land and Sea Council on behalf of the Whadjuk native title claimants. The submission raises concerns over the extent of ground disturbance required, and whether the proposed clearing will disturb Aboriginal heritage sites. It is advised that a heritage survey may be required and requests that Whadjuk representatives are contracted to monitor the clearing process, to alleviate Aboriginal heritage concerns. It is further advised that the monitoring process will also limit the risk of the applicant breaching the Aboriginal heritage Act 1972 (South West Aboriginal Land and Sea Council, 2013).

The proponent has advised that the City of Wanneroo commissioned an Aboriginal Heritage Survey in 2013 which included the application area. It is advised that no Aboriginal Heritage sites were identified however the report did identify high risk areas of sub surface artefact discovery and recommended that a Heritage Management Plan be prepared and clearing in those areas be monitored. The proponent has thus committed to engaging a suitably qualified archeologist and two Whadjuk People to monitor ground disturbance during works. If during construction Aboriginal artefacts or skeletal material are found the proponent will cease all work within a demarcated 20 metre exclusion area and all relevant parties will be contacted (Strategen, 2014).

Methodology References:

- City of Wanneroo (2013)
- South West Aboriginal Land and Sea Council (2013)
- Strategen (2014)

GIS Databases:

- RIWI Act, Groundwater Areas

4. References

- City of Wanneroo (2013) Direct Interest Submission for Clearing Application CPS 5759/1. DER Ref: A681006
- Coffey Environments (2009) Flora, Vegetation and Fauna Survey. Additional Information for CPS 5759/1. DER Ref: A314819
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DER (2013) Site Inspection Report for Clearing Permit Application CPS 5759/1. Site inspection undertaken 07/10/2013. Department of Environment Regulation, Western Australia (DER Ref A).
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dec.wa.gov.au/>. Accessed October 2013.
- Government of Western Australia (2000) Bush Forever Volumes 1 and 2. Western Australian Planning Commission, Perth WA.
- Government of Western Australia (2013); 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment Regulation, 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.
- South West Aboriginal Land and Sea Council (2013) Direct interest submission on behalf of the Whadjuk Native Title Claimants for Clearing Permit Application CPS 5759/1.
- Strategen (2014) Additional information for Clearing Permit Application CPS 5759/1. DER Ref A759661.
- WAPC (2013) Development Approval subject to conditions. Additional Information for CPS 5759/1. DER Ref: A626980.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <http://florabase.dec.wa.gov.au/> (Accessed October 2013).