



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5859/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Southwide Pty Ltd

1.3. Property details

Property: LOT 200 ON PLAN 301790 (Lot No. 200 MINNINUP DALYELLUP 6230)
Local Government Area: Shire of Capel
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Refuse
Decision Date: 13 February 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
The area under application is mapped as Beard Vegetation Associations 3 and 37. 3 - medium forest; jarrah-marri. 37 - shrublands; teatree thicket. Shepherd et al (2001)	The clearing of 20.6 hectares is for the purpose of constructing sheds, hardstand, horse trail and grazing.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition of the native vegetation under application was determined by digital imagery and a site inspection undertaken by the Department of Environment Regulation (DER 2013).
The area under application is mapped as Heddle Vegetation Complexes 'Vasse' and 'Quindalup'. Vasse - Mixture of the closed scrub of Melaleuca species fringing woodland of Eucalyptus rudis (Flooded Gum) - Melaleuca species and open forest of Eucalyptus gomphocephala (Tuart) ' Eucalyptus.		To Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The area under application consists predominantly of Eucalyptus gomphocephala (Tuart) over Agonis flexuosa (Peppermint Tree). The understorey consists of olearia axillaris, Lepidosperma sp. Xanthorrhoea preissii, Guichenotia ledifolia and some rushes and sedges (DER 2013).
Quindalup - Coastal dune complex consisting mainly of two alliances - the strand and fore-dune alliance and the mobile and stable dune alliance. Local variations include the low closed forest of Melaleuca lanceolat. Heddle et al (1980)			There was a distinct wetland area consisting of rushes and sedges and melaleuca species (DER 2013). The soil type within the application area consisted of yellow and grey sand (DER 2013).

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 applicant proposes to clear 20.6 hectares of native vegetation for the purpose of constructing sheds, a hardstand, horse trail and grazing.

The majority of the area under application consists of vegetation in a very good to excellent (Keighery 1994) condition (DER 2013).

The area under application consists predominantly of *Eucalyptus gomphocephala* (Tuart) over *Agonis flexuosa* (Peppermint Tree). The understorey consists of *Olearia axillaris*, *Lepidosperma* sp. *Xanthorrhoea preissii*, *Guichenotia ledifolia* and some rushes and sedges (DER 2013).

There is a distinct wetland area consisting of rushes, sedges and melaleuca species (DER 2013).

A number of priority flora have been recorded within the local area (10 kilometre radius). The closest Priority 3 flora species is located approximately 400 metres south of the area under application. This species is found on white, grey or black sand, therefore suitable habitat may be located within the area under application (Western Australian Herbarium 1998-). Given the number of priority flora species located within the local area (10 kilometre radius) and that the vegetation under application contains vegetation in a very good to excellent (Keighery 1994) condition, suitable habitat for priority flora species may be located within the area under application.

Six species of rare flora have been recorded within the local area (10 kilometre radius). Suitable habitat may be located within the area under application for three of these species.

A number of fauna listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius) including: *Bettongia penicillata* subsp. *ogilbyi* (Woylie), *Calyptorhynchus banksii* subsp. *naso* (Forest Red-tailed Black-Cockatoo), *Calyptorhynchus baudinii* (Baudin's Cockatoo), *Calyptorhynchus latirostris* (Carnaby's Cockatoo), *Dasyurus geoffroyi* (Chuditch), *Phascogale tapoatafa* subsp. (Brush-tailed Phascogale), *Pseudocheirus occidentalis* (Western Ringtail Possum) and *Setonix brachyurus* (Quokka) (DPaW 2007-). Significant habitat for Carnaby's Cockatoo and Western Ringtail Possum is located within the area under application. The vegetation proposed to be cleared is also likely to contain habitat for other ground dwelling and arboreal fauna. Given the majority of the vegetation under application is in a very good to excellent (Keighery 1994) condition the clearing as proposed is likely to have an impact on significant habitat for fauna species indigenous to Western Australia.

The Greater Bunbury Regional Scheme (EPA 2003) identifies a regionally significant ecological linkage, the Dalyellup/ Gelorup / Crooked Brook Ecological Linkage, extending west - east from Dalyellup to Crooked Brook including the vegetation under application. The proposed clearing is likely to contribute to the degradation and disruption of this ecological linkage.

The application area is in close proximity to a major ecological linkage identified in the South West Regional Ecological Linkage Technical Report (Molloy et al., 2009) and endorsed by the Environmental Protection Authority. The application area is located approximately 170 metres east of the axis line of this ecological linkage. The application area is classed as 1a under the scheme, these areas represent native vegetation touching or less than 100 metres from the linkage (Molloy et al. 2009). Any development within a 1a category should aim to minimise impacts and fragmentation of the vegetation within the property and to adjoining vegetated areas. The clearing as proposed is likely to contribute to the degradation of this ecological linkage.

Threatened Ecological Community (TEC) 'Woodlands over sedgeland in Holocene dune swales of the southern Swan Coastal Plain' (SCP20a) is located adjacent to the west of the area under application. The application area is located within the buffer zone of this TEC. In addition this TEC may extend into the area under application (DPaW 2013). The clearing proposed will have an impact on the adjacent TEC as edge effects such as weed invasion, increased wind speed and increased drying of surface soils would be expected to increase in this area.

The vegetation under application may be representative of a Priority Ecological Community (PEC) 'Southern Swan Coastal Plain *Eucalyptus gomphocephala*, *Agonis flexuosa* woodlands' (Priority 3) (DPaW 2013). A vegetation survey would be required to determine if the vegetation under application is representative of this TEC.

A small (0.42 hectares) conservation category wetland (CCW) is located within the centre of the property. A large (40 hectares) CCW is located adjacent to the eastern boundary of the property. CCW's are highest priority wetlands, which are considered to support a high level of ecological attributes and functions (Water and Rivers Commission 2001).

The application area consists of vegetation in a very good to excellent (Keighery 1994) condition, may contain rare and priority flora, contains significant habitat for fauna, is located adjacent to a TEC and contains a CCW. Therefore the vegetation proposed to be cleared is considered to contain a high level of biological diversity.

Given the above the clearing as proposed is at variance to this principle.

Methodology

References:

- EPA (2003)
- DER (2013)
- DPaW (2007-)

- DPaW (2013)
- Molloy et al (2009)
- Water and Rivers Commission (2001)
- Western Australian Herbarium (1998-)

GIS Databases:

- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- SAC Datasets accessed - December 2013

(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

A number of fauna listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius) including: *Bettongia penicillata* subsp. *ogilbyi* (Woylie), *Calyptorhynchus banksii* subsp. *naso* (Forest Red-tailed Black-Cockatoo), *Calyptorhynchus baudinii* (Baudin's Cockatoo), *Calyptorhynchus latirostris* (Carnaby's Cockatoo), *Dasyurus geoffroii* (Chuditch), *Phascogale tapoatafa* subsp. (Brush-tailed Phascogale), *Pseudocheirus occidentalis* (Western Ringtail Possum) and *Setonix brachyurus* (Quokka) (DPaW 2007-).

The majority of the area under application consists of vegetation in a very good to excellent (Keighery 1994) condition (DER 2013).

Carnaby's cockatoo is listed as endangered and Baudin's cockatoo and Forest Red-tailed Black Cockatoo are listed as Vulnerable under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Carnaby's cockatoo nests in large hollows of eucalyptus trees and forages on the seeds, nuts and flowers of a large variety of plants including Proteaceous species (Banksia, Hakea, Grevillea), as well as Allocasuarina and Eucalyptus species, *Corymbia calophylla* and a range of introduced species, especially seeds from cones of *Pinus* species (Shah, 2006). A site inspection undertaken by DER (2013) identified numerous *Eucalyptus gomphocephala* (Tuart), some with hollows which are likely to provide suitable breeding habitat for the black cockatoo species. Tuart trees within the application area may also provide feeding habitat for these species. The clearing as proposed is likely to have an impact on significant habitat for this species.

The Western Ringtail Possum is listed as Vulnerable under the EPBC Act. Western Ringtail Possums occur in and near coastal Peppermint and Tuart dominated forest (DotE 2013). A large proportion of the area under application consists of Tuart dominated forest with an understorey of peppermint trees (DER 2013). This vegetation is in a very good to excellent (Keighery 1994) condition (DER 2013). The Western Ringtail Possum has been significantly affected by the clearing and fragmentation of their habitat throughout their range, especially the clearing of peppermint trees and habitat within cooler microclimates (DotE 2013). Given the dominance of peppermint trees and tuarts within the vegetation proposed to be cleared it is likely the proposed clearing will impact upon significant habitat for this species.

An adjacent conservation category wetland is part of the muddy lakes wetlands known to support a significant population of Quokka. It is possible that this population extends into the wetland directly adjacent to the area under application and may be present within the application area.

Given the very good to excellent (Keighery 1994) condition vegetation under application, it is likely to be significant habitat for ground dwelling and arboreal fauna including the Woylie, Brush-tailed Phascogale and Chuditch (DPaW 2013).

The application area is also in close proximity to a major ecological linkage identified in the South West Regional Ecological Linkage Technical Report (Molloy et al., 2009) and endorsed by the Environmental Protection Authority. The application area is located approximately 170 metres east of the axis line of this ecological linkage. The application area is classed as 1a under the scheme, these areas represent native vegetation touching or less than 100 metres from the linkage (Molloy et al. 2009). It is considered that the vegetation within the application area contributes to the function and value of this linkage for arboreal and avian fauna. The clearing proposed will contribute to the degradation of this linkage.

Given the above the clearing as proposed is at variance to this principle.

Methodology

References:

- DotE (2013)
- DPaW (2007-)
- DPaW (2013)
- EPA (2009)
- Keighery (1994)
- Molloy et al (2009)
- Shah (2006)

GIS Databases:

- SAC Datasets accessed - December 2013

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

Comments Proposal may be at variance to this Principle

Six species of rare flora have been recorded within the local area (10 kilometre radius). The closest two species have been recorded approximately 2.5 and 3.5 kilometres south east of the area under application.

The first rare flora species grows on deep sandy soil, in mixed woodland of jarrah (*Eucalyptus marginata*) and banksia (Brown et al 1998). Given the vegetation within the area under application is dominated by *Eucalyptus gomphocephala* and *Agonis flexuosa* suitable habitat is not likely to be present within the area under application for this species.

The second rare flora species is found in low-lying depression in peaty and sandy clay swamps that contain water into summer. Given the presence of a wetland located within and adjacent to the area under application area suitable habitat for this species may be located within the area under application.

Suitable habitat may also be present for two other rare flora species found within the local area. One being found on sandy or sandy clay soils within winter wet flats (Western Australian Herbarium 1998-) The second being found on grey sand, grey to black sandy loam and brown sandy clay loam, often in low lying winter-wet areas (Brown et al 1998-).

Given the above and that the majority of the vegetation under application is in a very good to excellent (Keighery 1994) condition the vegetation may provide habitat for rare flora species.

Therefore the clearing proposed may be at variance to this principle.

Methodology

References:

- Brown et al (1998)
- Western Australian Herbarium (1998-)

GIS Databases:

- SAC Datasets accessed - December 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 at variance to this Principle

Threatened Ecological Community (TEC) 'Woodlands over sedgeland in Holocene dune swales of the southern Swan Coastal Plain' (SCP20a) is located adjacent to the west of the area under application. The application area is located within the buffer zone of this TEC.

The clearing proposed will have an impact on the adjacent TEC as edge effects such as weed invasion, increased wind speed and increased drying of surface soils would be expected to increase.

In addition the TEC may extend into the area under application (DPaW 2013).

Given the above the clearing as proposed will impact upon a TEC and therefore is at variance to this principle.

Methodology

GIS Database:

- SAC Datasets accessed - December 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 at variance to this Principle

The area under application is located within the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 39 per cent of its Pre European vegetation extent remaining (Government of Western Australia 2013).

The vegetation under application is mapped as Beard Vegetation Associations 3 and 37 and Heddle Vegetation Complexes Vasse and Quindalup which have approximately 18, 35, 29 and 35 per cent of their Pre-European extent remaining in the Swan Coastal Plain bioregion respectively (Government of Western Australia 2013). Approximately 13.2 hectares of the vegetation under application is mapped as Beard Vegetation Association 3. Approximately 15.3 hectares is mapped as Heddle Vegetation Complex 'Vasse'.

The National Objectives and Targets for Biodiversity Conservation include a target that prevents the clearance of ecological communities with an extent below 30 per cent of that present pre-European settlement (Commonwealth of Australia, 2001).

Digital imagery (Bunbury 50cm Orthomosaic - Landgate 2008) indicates that the local area (10 kilometre radius) surrounding the area under application retains approximately 30 per cent vegetation cover.

The majority of the vegetation under application is in a very good to excellent (Keighery 1994) condition, contains significant habitat for fauna, may contain priority and rare flora, will impact upon a TEC and a CCW. Therefore the vegetation proposed to be cleared is considered to be a significant remnant.

Given the above, the proposed clearing is at variance to this principle.

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DPaW Managed Lands (%)
IBRA Bioregion*				
Swan Coastal Plain	1 501 222	587 708	39	35
Shire*				
Shire of Capel	55 945	19 123	34	44
Beard Vegetation Association in Bioregion*				
3	17 365	3 216	18	11
37	38,238	18,000	47	19
Hedde Vegetation Complex in Bioregion**				
Vasse	11,190	3,287	29	1
Quindalup	15 618	5 618	35	38

* Government of Western Australia (2013)

**Hedde et al (1980)

Methodology

References:

- Commonwealth of Australia (2001)
- Government of Western Australia (2013)
- Hedde et al (1980)

GIS Databases:

- Bunbury 50cm - Orthomosaic - Landgate 2008
- Local Government Authorities - Landgate
- 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 at variance to this Principle

A small (0.42 hectare) Conservation Category Wetland (CCW) is located within the centre of the property. A large (40 hectare) CCW is located adjacent to the eastern boundary of the property. The CCW located adjacent to the application area is part of the regionally significant Muddy lakes wetland chain which has been recognised as supporting a number of taxa that are uncommon to or otherwise not known from the Swan Coastal Plain platform (DPaW 2013). CCW's are highest priority wetlands, which are considered to support a high level of ecological attributes and functions (Water and Rivers Commission 2001).

Two multiple use wetlands are also located within close proximity to the application area.

No watercourses have been mapped within the application area. An area subject to inundation is located adjacent to the south east corner of the property.

A site inspection undertaken by DER (2013) identified riparian vegetation within the area under application.

Given the presence of riparian vegetation and a CCW within and adjacent to the area under application the clearing proposed is at variance to this principle.

Methodology

References:

- DER (2013)
- Water and Rivers Commission (2001)

GIS Databases:

- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Hydrology, linear

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

Comments Proposal is seriously at variance to this Principle

The area under application has been mapped as soil type Kf10 'Swale formations behind the coastal dunes and made up of old estuarine materials; chief soils are probably black and grey cracking clays but there are a variety of other soils. A single chain of dunes fronts the coast' (Northcote, 1960-1968).

The Commissioner of Soil and Land Conservation (2013) advised that the land degradation risk in the form of wind erosion will be very high once the site has been cleared and worked.

No information has been provided to indicate the applicant recognises the risk and has a strategy in place to manage it (Commissioner of Soil and Land Conservation 2013).

The Commissioner of Soil and Land Conservation (2013) has advised that the application area may not be suitable for clearing as the risk of land degradation for wind erosion is rated at very high to extreme.

Given the above the clearing as proposed is seriously at variance to this principle.

Methodology References:

-Northcote (1960-1968)
- Commissioner of Soil and Land Conservation (2013)

GIS Database:

-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

The Tuart Forest National Park is located approximately 5.3 kilometres south of the application area. No other conservation areas have been mapped within the local area (10 kilometre radius).

The application area is located in close proximity to a major ecological linkage identified in the South West Regional Ecological Linkage Technical Report (Molloy et al., 2009) and endorsed by the Environmental Protection Authority. The application area is located approximately 170 metres east of the axis line of this ecological linkage. The application area is classed as 1a under the scheme, these areas represent native vegetation touching or less than 100 metres from the linkage (Molloy et al. 2009). Any development within a 1a category should aim to minimise impacts and fragmentation of the vegetation within the property and to adjoin vegetated areas. The clearing as proposed is likely to contribute to the degradation of this ecological linkage.

The clearing as proposed will also contribute to fragmentation of the Dalyellup/ Gelorup / Crooked Brook Ecological Linkage (EPA 2003), of which the vegetation under application is a part. The proposed clearing is likely to contribute to further degradation or disruption of this ecological linkage.

Given the above the clearing as proposed may impact upon a conservation area by reducing fauna movement across the landscape.

Therefore the clearing as proposed may be at variance to this principle.

Methodology References:

- EPA (2003)
- Molloy et al. (2009)

GIS Database:

-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 at variance to this Principle

The area under application contains a Conservation Category Wetland (CCW). A CCW is also located adjacent to the area under application. CCW's are highest priority wetlands, which are considered to support a high level of ecological attributes and functions (Water and Rivers Commission 2001). The CCW located adjacent to the application area is part of the regionally significant Muddy lakes wetland chain which has been recognised as supporting a number of taxa that are uncommon to or otherwise not known for the Swan Coastal Plain platform (DPaW 2013).

The application area drains into these wetlands and therefore surface water is likely to be affected by the proposed clearing.

Groundwater Salinity ranges from 500 -1000 milligrams per litre of Total Dissolved Solids (TDS) which is considered to be marginal. The clearing as proposed is not likely to cause deterioration in the quality of groundwater.

Given that 20.6 hectares is proposed to be cleared containing native vegetation in a very good to excellent (Keighery 1994) condition, the clearing proposed is likely to cause deterioration in the quality of surface water.

Therefore the clearing as proposed is at variance to this principle.

Methodology References:
-DER (2013)
-Water and Rivers Commission (2001)

GIS Databases:
-Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
-Groundwater Salinity
-Hydrology, 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**

The area under application lies adjacent to an area subject to inundation. The Commissioner of Soil and Land Conservation (2013) has advised the areas proposed to be cleared are well drained and the risk of waterlogging or flooding is unlikely with the clearing of native vegetation on the soil types present (calcareous sands).

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

Methodology References:
- Commissioner of Soil and Land Conservation (2013)

GIS Databases:
- Soils, Statewide

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

Comments

The area under application is zoned as Regional Open Space under the Greater Bunbury Regional Scheme. Land zoned as Regional Open Space under the Greater Bunbury Regional Scheme is reserved to protect the natural environment, provide recreation opportunities, safeguard important landscapes and provide for public access.

The Commissioner of Soil and Land Conservation (2013) has advised the establishment and stabilising of the area with pasture may be difficult, as the area will be bare and most likely reworked.

The Capel Land Conservation District Committee (2013) is opposed to the application as the area is reserved for Regional Open Space and has raised concerns regarding impacts to significant fauna habitat. These concerns have been addressed above and in clearing principle (b).

Development Approval is required from the Shire of Capel for the proposed construction of sheds, hardstand, horse trail and grazing. Development Approval has not been received.

Methodology References:
- Capel Land Conservation District Committee (2013)
- Commissioner of Soil and Land Conservation (2013)

GIS Databases:
- Greatern Bunbury Regional Area

4. References

- Brown A., Thomson-Dans C. and Marchant N. (1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- Capel Land Conservation District Committee (2013) Submission for Clearing Permit Application CPS 5859/1. Western Australia. DER Ref: A707366
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- DER (2013) Site Inspection Report for Clearing Permit Application CPS 5859/1, Lot 200 Minninup, Dalyellup. Site inspection undertaken 22 November 2013. Department of Environment Regulation, Western Australia (DER Ref: A707371).
- DPaW (2013) Regional Advice for Clearing Permit 5859/1 - Southwide Pty Ltd. Department of Parks and Wildlife. Western Australia. (DER Ref:A707363)
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- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western 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., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Water and Rivers Commission (2001) Position Statement: Wetlands, Water and Rivers Commission, Perth.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <http://florabase.dpaw.wa.gov.au/> (Accessed December 2013).