



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 7996/1
Permit Holder:	Stockland Development Pty Ltd
Duration of Permit:	21 August 2018 – 21 August 2023

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 road upgrades.

2. Land on which clearing is to be done

Lot 805 on Deposited Plan 409816, Brabham
Youle-Dean Road Reserve (PIN 12262091), Brabham

3. Area of Clearing

The Permit Holder must not clear more than 0.95 hectares of native vegetation within the areas cross-hatched yellow on attached Plan 7996/1.

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.

PART II – MANAGEMENT CONDITIONS

5. Avoid, minimise and reduce the impacts and extent of 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.

6. Direction of clearing

The Permit Holder shall conduct clearing in a slow, progressive manner from west to east to allow fauna to move into adjacent native vegetation ahead of the clearing activity.

PART III – RECORD KEEPING AND REPORTING

7. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit, in relation to the clearing of native vegetation authorised under this Permit:

- (a) the location where the clearing occurred, 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;
- (b) the date that the area was cleared;
- (c) the size of the area cleared (in hectares);
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 5 of this Permit; and
- (e) actions taken in accordance with condition 6 of this Permit.


8. Reporting

The Permit Holder must provide to the *CEO* the records required under condition 7 of this Permit, when requested by the *CEO*.

DEFINITIONS

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

CEO: means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*;

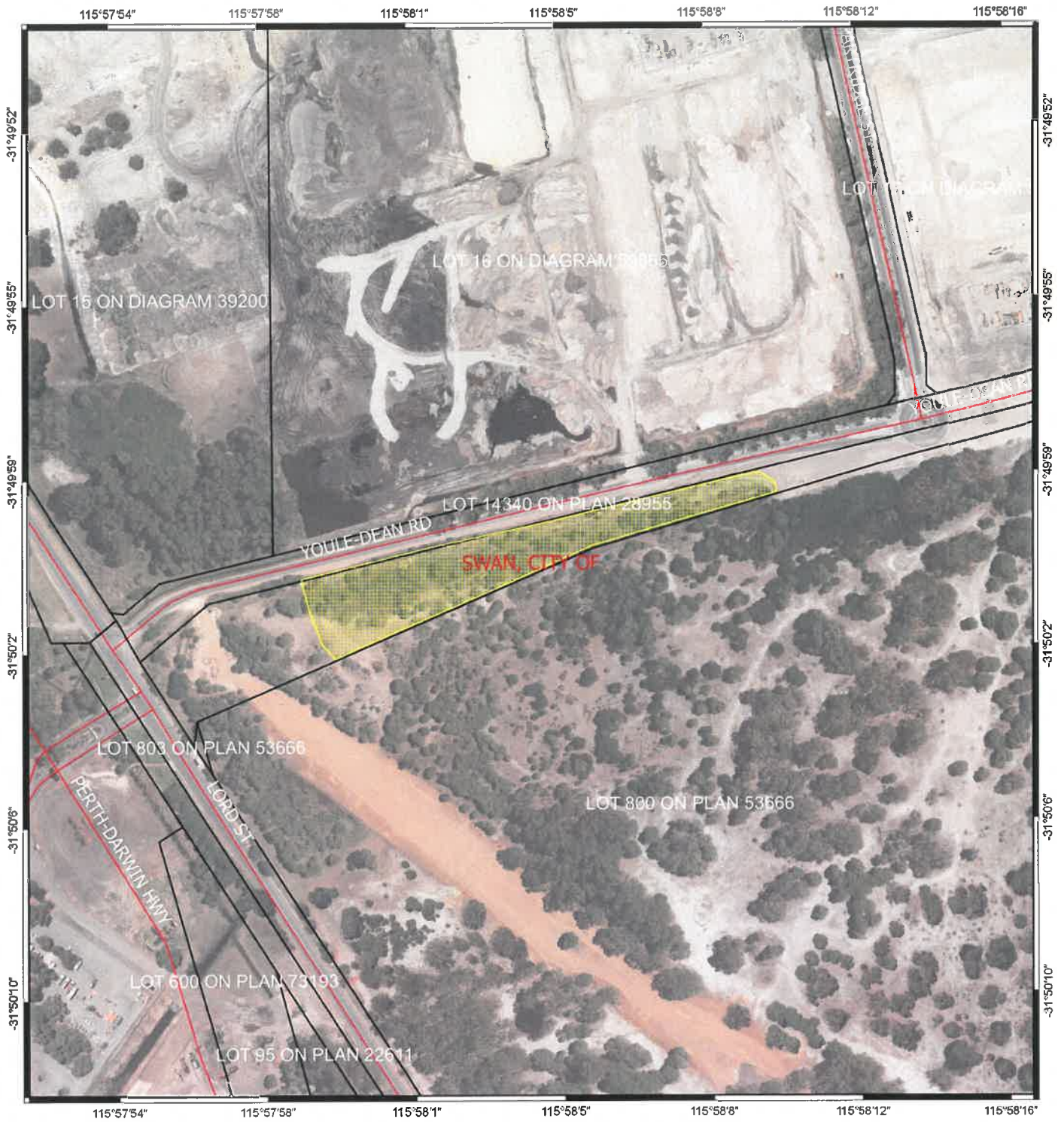


Samara Rogers
MANAGER
NATIVE VEGETATION REGULATION

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

27 July 2018

Plan 7996/1



Legend

-  Areas Approved to Clear
-  Cadastre
-  Roads
-  Local Government Authority
- Virtual Mosaic



100 0 100 m



MGA 94
Geocentric Datum of Australia 1994

J. Lopez
Date *27/7/2018*
Sambra Rogers
Officer with delegated authority under Section 20
of the Environmental Protection Act 1986



GOVERNMENT OF
WESTERN AUSTRALIA



1. Application details

1.1. Permit application details

Permit application No.: CPS 7996/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Stockland Development Pty Ltd
Application received: 16 February 2018

1.3. Property details

Property: Lot 805 on Deposited Plan 409816, Brabham Road Reserve (PIN 12262091), Brabham
Local Government Authority: City of Swan
Localities: Brabham

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.95		Mechanical Removal	Road Upgrades

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 27 July 2018

Reasons for Decision: The clearing permit application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986*. It has been concluded that the proposed clearing is at variance to principle (f) and is not likely to be at variance to any of the remaining clearing principles.

The Delegated Officer determined that the application area contains vegetation growing in association with a resource enhancement wetland. Noting the extent of the proposed clearing and condition of the vegetation within the proximity of this wetland, the Delegated Officer determined that the proposed clearing will not have a significant impact on this wetland.

The Delegated Officer noted that the application area is adjacent to areas that may contain suitable habitat for Quenda. To address these impacts, a fauna management condition requiring directional clearing has been added to the permit to mitigate any indirect impacts to fauna.

In determining to grant a clearing permit subject to conditions, the Delegated Officer found that the proposed clearing is unlikely to lead to an unacceptable risk to the environment.

2. Site Information

Clearing Description: Stockland Development is proposing to upgrade and realign Youle-Dean Road to tie into the new Lord Street / Youle-Dean Road roundabout intersection. The total clearing of native vegetation will be 0.95 hectares.

Vegetation Description: The vegetation within the application area is mapped as the Southern River Vegetation Complex, Swan Coastal Plain vegetation complex. Which is described as "open woodland of *Corymbia calophylla* - *Eucalyptus marginata* - *Banksia* species with fringing woodland of *Eucalyptus rudis* - *Melaleuca raphiophylla* along creek beds"

A site inspection undertaken by Department of Water and Environmental Regulation (DWER) officers (DWER, 2018) and supporting information provided by the applicant (PGV, 2018), identified that the vegetation within the application area is *Melaleuca raphiophylla* Woodland over weeds; and *Melaleuca preissiana* Low Open Woodland over *Hypocalymma angustifolium*/*Juncus pallidus* Open Low Heath.

Vegetation Condition: Good: Structure significantly altered but retains basic vegetation structure.
to
Completely Degraded: no longer intact, completely/almost completely without native species (Keighery, 1994).

A patch of *Melaleuca* sp. within the application area was identified as being in a good condition, whilst the western part of application area is partially cleared and in a degraded condition consisting of *Acacia* sp., *Eucalyptus* sp., and *Typha* sp. The remainder of the application area is in a completely degraded condition.

Soil/Landform type: The application area is mapped within the Bassendean Yanga Phase (Bassendean): Flat, poorly drained complex landscape; soils include shallow sand over limestone or ferruginous pan, deep leached sand, and saline soils; dense *Melaleuca* sp. along drainage lines (DAFWA 2018).

Comment The local area referred to below is defined as a ten kilometre radius around the clearing area.

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Proposed clearing is not likely at variance to this Principle

The proposed clearing is part of the upgrade to Youle-Dean Road to connect with the new Lord Stree/Youle-Dean Road intersection. The application area has evidence of historical disturbance and has been impacted by grazing and the presence of invasive weeds. The property adjacent to the application area was commissioned as an airfield in 1944 and since that time has been extensively grazed (PGV, 2016).

An environmental assessment undertaken by PGV Environmental utilised a Flora and Vegetation survey undertaken in 2013 and fauna studies undertaken for the Albion District Structure Plan and on-ground site reconnaissance specific to the application area on 16 March 2017 (PGV, 2016). The PGV Environmental assessment identified that the vegetation in the application area was *Melaleuca raphiophylla* Woodland over weeds; and *Melaleuca preissiana* Low Open Woodland over *Hypocalymma angustifolium*/*Juncus pallidus* Open Low Heath. (PGV, 2018; DWER, 2018). The PGV Environmental assessment did not identify and flora or fauna of conservation significance.

A desktop assessment was conducted by DWER in April 2018 and a site inspection by DWER officers on the 13 June 2018 confirmed the vegetation type and condition within the application area. According to available databases, thirteen threatened fauna species listed as specially protected under the *Wildlife Conservation Act 1950*, and ten priority fauna species, have been recorded within the local area. As discussed under Principle (b), noting the condition of the vegetation, the application area is not likely to comprise of significant habitat for indigenous fauna, including species of conservation significance.

According to available databases, seven rare flora species and 42 priority flora species have been recorded within the local area. As discussed further under Principle (c), given the habitat preferences of these species, and the condition of the vegetation, the application area is not likely to include, or be necessary for the continued existence of, rare or priority flora.

According to available databases, nine threatened ecological communities (TEC) and 11 priority ecological communities (PEC) have been recorded within the local area. Approximately 45 per cent of the application area is within a mapped occurrence of the 'Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region', listed as a 'Priority 3(iii)' PEC by the Department of Biodiversity, Conservation, and Attractions (DBCA), and as an 'Endangered' TEC under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. As discussed further under Principle (d), given the species composition of the vegetation within the application area, the application area is not likely to represent this PEC/TEC.

Given the above, the application area is not likely to comprise a high level of biological diversity. The proposed clearing is not likely to be at variance to this Principle.

(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.

Proposed clearing is not likely to be at variance to this Principle

As outlined in Section 2, the vegetation within the application area is a *Melaleuca raphiophylla* Woodland over weeds; and *Melaleuca preissiana* Low Open Woodland over *Hypocalymma angustifolium*/*Juncus pallidus* Open Low Heath. (PGV, 2018; DWER, 2018). As discussed under Principle (f), the application area is overlapping a REW.

According to available databases, thirteen threatened fauna species and ten priority fauna species have been recorded within the local area. Noting the current known range extents of these species, based on available datasets the application area may comprise habitat for the following:

- Carnaby's Cockatoo (*Calyptorhynchus latirostris*), listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* (WC Act). According to available databases, the application area is within the mapped roosting extent of this species.
- Baudin's Cockatoo (*Calyptorhynchus baudinii*), listed as rare or likely to become extinct under the WC Act.
- Forest Red-tailed Black Cockatoo (*Calyptorhynchus baudinii*), listed as rare or likely to become extinct under the WC Act.
- Southern Brush-tailed Phascogale (*Phascogale tapoatafa* subsp. *tapoatafa*), listed as rare or likely to become extinct under the WC Act.
- Quenda / Southern Brown Bandicoot (*Isodon obesulus* subsp. *fusciventer*), listed as Priority 4 by DBCA.
- Western Brush Wallaby (*Notamacropus irma*); listed as Priority 4 by DBCA.

Black cockatoos breed in large hollow-bearing trees, generally within woodlands or forests or in isolated trees (Commonwealth of Australia, 2012). Black cockatoos have a preference for foraging habitat that includes Jarrah and Marri woodlands and forest heathland and woodland dominated by Proteaceous plant species such as *Banksia* sp., *Hakea* sp. and *Grevillea* sp. (Commonwealth of Australia, 2012). Noting the species present within the application area, the vegetation does not comprise of suitable foraging or breeding habitat for black cockatoos.

The Southern Brush-tailed Phascogale is a small arboreal dasyurid. In south west between Perth and Albany and they have been observed in dry sclerophyll forests and open woodlands that contain hollow bearing trees (DEC, 2012b). Given the lack of hollow bearing trees and the historical disturbance within the application area, the application area is not likely to contain suitable habitat for this species.

The Quenda and the Western Brush Wallaby prefer scrubby, often swampy vegetation with dense cover up to one metre high (DEC, 2012a). On the Swan Coastal Plain the Quenda are often associated with wetlands (DEC, 2012a). Given the presence of a wetland and the type of vegetation within the application area, suitable habitat for Quenda may be present within the application area, however it is not considered significant given the degraded condition and the historical disturbances.

Noting the vegetation type and the degraded condition of the vegetation within the application area, the application area is not likely to comprise significant habitat for indigenous fauna. The proposed clearing is not likely to be at variance to this Principle.

It is noted that Quenda may utilise the application area when moving through the landscape. To mitigate any potential impacts a directional clearing condition has been placed on the permit to ensure that any fauna species utilising the application area can move into adjacent vegetation.

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

Proposed clearing is not likely to be at variance to this Principle

According to available databases, seven rare flora species has been recorded within the local area.

A flora survey undertaken in 2013 by PGV Environmental on the adjacent property did not identify any rare flora. The PGV site inspection of the application area in March 2017 did not identify any rare flora within the application area and noted the presence of *Typha orientalis* (now naturalised) within the application area.

A site inspection by DWER officers on 13 June 2018 confirmed large parts of the application area were degraded to completely degraded (Keighery, 1994) condition. Given the site has a history of disturbance resulting in the degraded condition of the site, the application area is not likely to provide supporting habitat for rare flora.

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

(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.

Proposed clearing is not likely to be at variance to this Principle

According to available databases, nine TECs have been recorded within the local area. Approximately 0.42 hectares or 45 per cent of the application area is within a mapped occurrence of the Commonwealth-listed TEC 'Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region' (Banksia Woodlands). There are also multiple occurrences of Banksia Woodlands TECs within 100m of the application area.

As outlined in Section 2, the vegetation within the application area is *Melaleuca raphiophylla* Woodland over weeds; and *Melaleuca preissiana* Low Open Woodland over *Hypocalymma angustifolium/Juncus pallidus* Open Low Heath (PGV, 2018; DWER, 2018). Given this, the vegetation within the application area does not comprise of the Banksia Woodlands TEC.

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

(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.

Proposed clearing is not likely to be at variance to this Principle

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). The Environmental Protection Authority (EPA) recognises that Perth Metropolitan Region to be a constrained area (EPA, 2008). The application area is located within the mapped extent of the Perth Metropolitan Region Scheme.

As indicated in Table 1, the current extents of native vegetation within the IBRA bioregion and the mapped vegetation complex are above the 10 per cent threshold for a constrained area (Government of Western Australia, 2018a; Government of Western Australia, 2018b). Therefore the application area is not considered to be in an extensively cleared area.

As outlined in Table 1 (see below) the percentage of vegetation remaining in the Swan Coastal Plain Bioregion and the Swan Coastal Plain vegetation complex (Southern River Complex) is 38.57 per cent and 18.42 per cent respectively. Given both percentages remaining are above the minimum 10 per cent threshold required within a constrained area, the application area is not considered to be in an extensively cleared area.

Noting that the application area does not comprise of habitat for TECs/PECs, conservations significant flora or fauna, the application area is not considered a significant remnant.

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

Table 1: Vegetation extents

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Current Extent DBCA Managed Lands (%)
IBRA Bioregion*				
Swan Coastal Plain	1,501,222	578,997	38.57	38.47
Swan Coastal Plain Complex **				
Southern River Complex	58,781	10,828	18.42	1.59

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Proposed clearing is at variance to this Principle

A portion of the application area (approximately 0.5 hectares or 50 per cent) is located within a Resource Enhancement Wetland (REW). According to available databases, the Youle-Dean Road REW is identified as a Palusplain (seasonally waterlogged flat; wetland). This REW is approximately 15.5 hectares in total area, and is located within the Bennett Brook consanguineous wetland suite.

A site inspection by PGV Environmental conducted in March 2017 confirmed that the native vegetation within the application area is growing in association with a wetland, this was confirmed by a DWER Site Inspection in June 2018. Given that part of the application area is mapped as a REW, and the presence of vegetation associated with this wetland, the proposed clearing is at variance to this Principle.

Given the degraded condition of the vegetation within the wetland, and the size of the wetland proposed to be cleared (approximately 0.5 hectares), the proposed clearing is not likely to significantly impact the environmental values of this wetland.

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

Proposed clearing is not likely to be at variance to this Principle

As outlined in Section 2, the soil type within the application area is mapped as Bassendean Yanga Phase (Bassendean) Flat, poorly drained complex landscape; soils include shallow sand over limestone or ferruginous pan, deep leached sand, and saline soils; dense *Melaleuca* sp. along drainage lines (DAFWA, 2018).

As indicated in Table 2, the application area has >70 per cent risk of moderate to high waterlogging and a 30-50 per cent risk of high to extreme phosphorus export.

Given the extent of the proposed clearing and the condition of the vegetation within the application area, the proposed clearing is not likely to cause appreciable land degradation. The proposed clearing is not likely to be at variance to this Principle.

Table 2: Land Degradation Hazards (Schoknecht et al, 2004)

Risk categories	Application area
Wind erosion	10-30% of map unit has a high to extreme wind erosion risk
Water erosion	<3% of map unit has a high to extreme water erosion risk
Salinity	10-30% of map unit has a moderate to high salinity risk or is presently saline
Subsurface Acidification	10-30% of map unit has a high subsurface acidification risk or is presently acid
Flood risk	<3% of the map unit has a moderate to high flood risk
Water logging	>70% of map unit has a moderate to very high waterlogging risk
Water Repellence	10-30% of the map unit has a moderate to very high water repellence risk
Phosphorus export risk	30-50% of map unit has a high to extreme phosphorus export risk

(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.

Proposed clearing is not likely to be at variance to this Principle

The application area is approximately 360 metres west of the Bush Forever Site 304, 'Whiteman Park Whiteman/West Swan' and approximately 700 metres north of Bush Forever Site 200 'Caversham Airbase Bushland, West Swan/Whiteman'. In the local area, there are also two privately-managed conservation areas south east from the application area.

Bush Forever site 304 is separated from the application area by Lord street and the proposed Perth-Darwin Hwy. Given this distance, the proposed clearing is not likely to impact on the environmental values of any conservation area.

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

(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.

Proposed clearing is not likely at variance to this Principle

As discussed under Principle (f), the application area intersects with a resource enhancement wetland and comprises of vegetation associated with a wetland.

Given the extent of the proposed clearing, the degraded condition of the vegetation within the application area, the proposed clearing is not likely to cause deterioration in the quality of surface or underground water.

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

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

Proposed clearing is not likely to be at variance to this Principle

The average annual rainfall for the local area is approximately 800 millimetres.

Noting the application area intersects a resource enhancement wetland, based on the moderate rainfall and that the majority of the application area contains well-draining soil types, it is considered that the proposed clearing is not likely to cause, or exacerbate the incidence or intensity of flooding.

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

Planning instruments and other relevant matters.

The application is to clear 0.95 hectares of native vegetation within Lot 805 on Deposited Plan 409816, Brabham; and Road Reserve (PIN 122662091), Brabham for the purpose of road upgrades (refer to Figure 1).

The clearing permit application was advertised on the Department of Water and Environmental Regulation (DWER) website on 15 March 2018 for a 21 day public submission period. No public submissions were received in relation to this application.

The clearing permit application was readvertised on the 5 July 2018 for a period of seven days, to include Youle-Dean road reserve (PIN 12262091). Brabham. No public submissions were received in relation to this application.

No registered Aboriginal Sites of Significance occur within the application area.

The proposed road upgrade is located in the Albion District Structure Plan, which was included in the City of Swan Local Planning Scheme No. 17 (LPS 17) (PGV, 2018). Scheme provisions are contained in LPS 17 regarding environmental management for the area.

The City of Swan advised that there is no objection to the proposed clearing subject to a valid clearing permit being obtained, tree protection in accordance with Australian Standard AS4970-2009 and any change in levels required before final engineering drawings approval be rectified at the developer's cost (City of Swan, 2018).

4. References

- City of Swan (2018) Authority to access (DWER Ref A1669303)
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Department of Environment and Conservation (DEC) (2012a) Fauna profiles, Quenda, *Isoodon obesulus*. Department of Environment and Conservation, Perth, Western Australia.
- Department of Environment and Conservation (DEC) (2012b) Fauna Profiles. Brush-tailed Phascogale (*Phascogale tapoatafa*). Department of Environment and Conservation, Perth, Western Australia.
- Department of Water and Environmental Regulation (DWER) (2018) Site Inspection Report (DWER Ref A1700822)
- Environmental Protection Authority (EPA) (2008) Environmental Guidance for Planning and Development. Guidance Statement No. 33. Environmental Protection Authority. Western Australia.
- Government of Western Australia. (2018a) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of April 2018. WA Department of Biodiversity, Conservation and Attractions. Available from: <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>.
- Government of Western Australia. (2018b) 2017 South West Vegetation Complex Statistics. Current as of April 2018. WA Department of Biodiversity, Conservation and Attractions, Perth. Available from: <https://catalogue.data.wa.gov.au/dataset/dbca>.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- PGV Environmental (2016) West Swan Wastewater Pump Station and Sewer Line and Youle-Dean Road Upgrade, Environmental Assessment. Prepared for Stockland Development. 26 October 2016 (DER Ref: A1330569).
- PGV Environmental (2018) and Youle-Dean Road Upgrade and Realignment, Environmental Assessment. Prepared for Stockland Development. 16 February 2018 (DWER Ref: A1618039).
- Schoknecht, N., Tille, P. and Purdie, B. (2004) Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs' Resource Management Technical Report No. 280. Department of Agriculture. Change to dafwa land deg report from website add web address etc.
- Threatened Species Scientific Committee (TSSC) (2016). Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community. Canberra: Department of the Environment and Energy. Available from: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/131-conservation-advice.pdf>.

GIS Databases:

- Aboriginal Sites of Significance
- DBCA Managed Estate
- Directory of Important Wetlands
- Groundwater salinity
- Geomorphic wetlands (classification) Swan Coastal Plain
- Hydrography, hierarchy
- Hydrography, linear
- Land Degradation datasets
- Mean annual rainfall
- NLWRA, Current Extent of Native Vegetation
- Position Statement for Wetlands
- SAC Bio Datasets (Accessed June 2018)
- Soils, Statewide
- Topographic contours
- Vegetation Complexes SCP