



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 7809/1
Permit Holder:	Capricorn Investment Group Pty Ltd Yanchep Sun City Pty Ltd
Duration of Permit:	10 June 2019 to 10 June 2029

ADVICE NOTE

The funds referred to in condition 9 of this permit are intended for contributing towards the purchase of 3.12 hectares of native vegetation containing similar environmental values to the area to be cleared.

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 developing the Capricorn Coastal Node.

2. Land on which clearing is to be done

Lot 8024 on Deposited Plan 49302, Yanchep
Lot 8999 on Plan 10424, Yanchep
Lot 9046 on Plan 405421, Yanchep
Lot 15452 on Deposited Plan 40341, Two Rocks

3. Area of Clearing

The Permit Holder must not clear more than 2.5 hectares of native vegetation within the area hatched yellow on attached Plan 7809/1(a).

4. Period in which clearing is authorised

The Permit Holder shall not clear any native vegetation after 10 June 2024.

5. 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

6. 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.

7. 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 known *dieback* or *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. Wind erosion management

The Permit Holder shall not clear native vegetation unless development commences within one month of the authorised clearing being undertaken.

9. 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 10 June 2020, the Permit Holder shall provide documentary evidence to the CEO that funding of \$44,828 has been transferred to the Department of Water and Environmental Regulation for the purpose of establishing or maintaining native vegetation.

10. Revegetation

The Permit Holder shall implement and adhere to the Capricorn Coastal Node and foreshore area revegetation criteria and the Capricorn Yanchep Foreshore Management Plan, including but not limited to the following actions;

- (a) establish two 10x10 metre quadrat reference sites within adjacent vegetation;
- (b) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared, outside of Bush Forever Site 397;
- (c) at an *optimal time* following clearing authorised under this Permit commence *revegetating* and *rehabilitating* the areas shaded green, blue, purple and orange on Plan 7890/1(b) by
 - (i) laying the vegetative material and topsoil retained under condition 10(b);
 - (ii) deliberately *planting* of tube stock and *direct seeding* that will achieve the completion criteria outlined below; and
 - (iii) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area.
- (d) water planted vegetation between October and March for the first two years post planting as required;
- (e) install signage to educate reserve users of the revegetation activities being undertaken;
- (f) implement hygiene protocols by cleaning earth-moving machinery of soil and vegetation prior to entering and leaving the site;
- (g) achieve the following completion criteria after the five year monitoring period for areas *revegetated* and *rehabilitated* under this Permit; and

Objective	Target
Full revegetation: decommissioned tracks and foreshore disturbance - Areas shaded blue and orange of Plan 7809/1(b)	
Revegetate decommissioned access track within the foreshore area.	Five years from the commencement of revegetation, vegetation communities established are representative of reference sites including: <ul style="list-style-type: none"> • number and type of species (overstorey and mid/understorey species) • weed species and density.
Revegetate foreshore disturbance areas.	Five years from the commencement of revegetation, vegetation communities established are representative of reference sites including: <ul style="list-style-type: none"> • number and type of species (overstorey and mid/understorey species) • weed species and density.
Low-fuel revegetation – Areas shaded purple and green on Plan 7809/1(b)	
Establish low-threat revegetated areas within the Coastal Node and foreshore area.	Five years from the commencement of revegetation, vegetation communities established are representative of reference sites including: <ul style="list-style-type: none"> • percent vegetative cover; and • weed species and density.

- (h) undertake remedial actions for areas *revegetated* and *rehabilitated* where monitoring indicated that revegetation has not met the completion criteria, outlined in 10(g); including
- (iv) revegetate the area by deliberately *planting* native vegetation that will result in the minimum target in 10(g) and ensuring only *local provenance* seeds and propagating material are used;
- (v) undertake further weed control activities;
- (vi) undertake further watering activities; and
- (vii) annual monitoring of each *revegetated* and *rehabilitated* site, until the completion criteria, outline in 10(g) are met.

PART III - RECORD KEEPING AND REPORTING

11. Records must be kept

The Permit Holder must maintain the following records for activities done in pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
- (i) 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;
- (ii) the date that the area was cleared; and
- (iii) the size of the area cleared (in hectares).

- (b) Actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 6 of the Permit.
- (c) Actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 7 of the Permit.
- (d) The date development commenced in accordance with condition 8 of the Permit;
- (e) In relation to the revegetation of areas pursuant to condition 10 of this Permit:
 - (i) a description of the *revegetation* and *rehabilitation* activities undertaken;
 - (ii) the size of the area *revegetated* and *rehabilitated* (in hectares); and
 - (iii) the date that the area was *revegetated* and *rehabilitated*.

12. Reporting

- (a) The Permit Holder must provide to the *CEO* on or before 30 June of each year, a written report:
 - (i) of records required under condition 11 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar, a written report confirming that no clearing under this permit has been carried out, must be provided to the *CEO* on or before 30 June of each year.
- (c) Prior to 1 March 2029, the Permit Holder must provide to the *CEO* a written report of records required under condition 11 of this Permit where these records have not already been provided under condition 12(a) of this Permit.

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*;

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

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

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

local provenance means native vegetation seeds and propagating material from natural sources within 100 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared;

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;

optimal time means the period from April to June;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing *mulch*;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area; 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 Biodiversity, Conservation and Attractions Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



Samara Rogers
MANAGER
NATIVE VEGETATION REGULATION

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

17 May 2019

Plan 7809/1(a)

115°36.840' 115°36.930' 115°37.020' 115°37.110' 115°37.200' 115°37.290'





-31°32.160'
-31°32.250'
-31°32.340'
-31°32.430'
-31°32.520'

-31°32.160'
-31°32.250'
-31°32.340'
-31°32.430'
-31°32.520'



115°36.840' 115°36.930' 115°37.020' 115°37.110' 115°37.200' 115°37.290'

Legend

-  CPS areas approved to clear base layers
-  Cadastre
-  Road Centrelines
-  Local Government Authorities
- Image



0 50 100 150 200 m



MGA 94
Geocentric Datum of Australia 1994

Samara Rogers

2019.05.17 11:06:24

+08'00'

Officer with delegated authority under Section 20
of the Environmental Protection Act 1986



GOVERNMENT OF
WESTERN AUSTRALIA

Plan 7809/1(b)

115°36.930'

115°37.020'

115°37.110'

115°37.200'

-31°32.160'

-31°32.160'

-31°32.250'

-31°32.250'

-31°32.340'

-31°32.340'

-31°32.430'

-31°32.430'

115°36.840'

115°36.930'

115°37.020'

115°37.110'

115°37.200'

115°37.200'

-31°32.520'



Legend

- low_fuel_offset_BF
- low_fuel_mitigation_BF
- full_reveg_offset_BF
- full_reveg_mitigation_BF
- base layers
- Cadastre
- Road Centrelines
- Local Government Authorities
- Image



0 50 100 150 200 m



MGA 94
Geocentric Datum of Australia 1994

Samara Rogers

Samara Rogers

2019.05.17 11:10:29 +08'00'

Officer with delegated authority under Section 20
of the Environmental Protection Act 1986



GOVERNMENT OF
WESTERN AUSTRALIA



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application no.: 7809/1
Permit application type: Purpose Permit
Application received date: 11 October 2017

1.2. Applicant details

Applicant(s): Capricorn Investment Group Pty Ltd
Yanchep Sun City Pty Ltd

1.3. Property details

Properties: LOT 8024 ON PLAN 49302, YANCHEP
LOT 8999 ON PLAN 10424, YANCHEP
LOT 9046 ON PLAN 405421, YANCHEP
LOT 15452 ON PLAN 40341, TWO ROCKS
Local Government Authority: WANNEROO, CITY OF

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
2.5		Mechanical Removal	Recreation

1.5. Decision on application

Decision: Granted
Decision Date: 17 May 2019

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* (EP Act). It has been concluded that the proposed clearing is at variance to principle (h), may be at variance to principle (g), is not at variance to principle (f) and is not likely to be at variance to the remaining principles.

Through the assessment it has been determined that the proposed clearing will impact on the environmental values of Bush Forever Site 397, through the direct removal of 2.38 hectares of native vegetation.

The applicant avoided, minimised and mitigated impacts to Bush Forever Site 397 by proposing to revegetate and rehabilitate 0.65 hectares (0.25 hectares of full revegetation and 0.4 hectares of low fuel mitigation), effectively reducing the impact to the Bush Forever site from 2.38 hectares to 1.73 hectares. To achieve a 2:1 offset ratio, consistent with State Planning Policy 2.8, an offset of 3.46 (2x1.73) hectares is required.

To address the remaining residual environmental impacts, the applicant has committed to revegetating 0.34 hectares, outside of the application area, within Bush Forever Site 397. This brought the offset requirement down to 3.12 (3.46-0.34) hectares. The remaining 3.12 hectares will be offset through the provision of a monetary contribution of \$44,828 to the Department of Water and Environmental Regulation for the purchase of 3.12 hectares of native vegetation with similar values to the area to be cleared.

The Delegated Officer determined that the proposed clearing may increase the risk of weeds and dieback spreading into surrounding Bush Forever site and vegetated areas. A weed and dieback management condition has been placed on the permit to mitigate the impact of spreading weeds and dieback into adjacent native vegetation.

It was also determined that the proposed clearing may cause appreciable land degradation in the form of wind erosion. To minimise the impacts of wind erosion a condition has been placed on the permit requiring works to commence within one month of clearing.

The Delegated Officer decided to grant a clearing permit subject to weed and dieback management, avoidance and mitigation, land degradation and offset conditions.

2. Site Information

Clearing Description The applicants propose to clear 2.5 hectares of native vegetation within Lot 8024 on Deposited Plan 49302, Lot 8999 on Plan 10424 and Lot 9046 on Deposited Plan 405421, Yanchep, and Lot 15452 on Deposited Plan

40341, Two Rocks, for the purpose of facilitating the development of the Capricorn Coastal Node. The coastal node occurs within an area identified as the Capricorn Village Joint Venture foreshore reserve (Figure 1).

Note: The application was originally for the clearing of 1.72 hectares of native vegetation within a 2.3 hectare application area. The application was amended to the clearing of 2.44 hectares of native vegetation within a 2.53 hectare application area on 15 January 2018 and then again to the clearing of 2.5 hectares of native vegetation within a 2.54 hectare application area on 24 August 2018.



Figure 1. Capricorn Village Joint Venture foreshore reserve.

Vegetation Description The application area has been mapped as Quindalup vegetation complex which is described as '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 lanceolata* (Rottnest Teatree) - *Callitris preissii* (Rottnest Island Pine), the closed scrub of *Acacia rostellifera* (Summer-scented Wattle) and the low closed *Agonis flexuosa* (Peppermint) forest of Geographe Bay' (Government of Western Australia, 2018a).

The majority of the application area was identified to comprise of '*Scaevola crassifolia*, *Olearia axillaris*, *Acacia rostellifera*, and *Spyridium globulosum* heath on dune crests and *Lepidosperma gladiatum* closed heath in dune swales over *Acanthocarpus preissii*, **Pelargonium capitatum* **Arctotis stoechadifolia* and exotic grasses on sandy soils' (Strategen, 2017a).

Vegetation Condition Very Good; Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).
To
Completely Degraded; No longer intact, completely/almost completely without native species (Keighery, 1994).
The majority of the application area is in a very good (Keighery, 1994) condition.

Soil type Quindalup South youngest dune phase - Loose pale brown calcareous sand with no soil profile (Department of Primary Industries and Regional Development, 2018).

Quindalup South water, beach phase - Undifferentiated beach sand (Department of Primary Industries and Regional Development, 2018).

Comment The local area considered in the assessment of this application is defined as the area within a 10 kilometre radius of the application area.

3. Minimisation and mitigation measures

Supporting documentation provided by Strategen (2017b) notes that the location of the application area has been selected with consideration of the existing environment and quality of native vegetation.

In order to manage potential impacts associated with the proposed clearing on Bush Forever Site 397, the applicants will implement a range of environmental management measures detailed in the Capricorn Yanchep Foreshore Management Plan, focussing on key aspects and potential impacts, including the following:

- selective rehabilitation of degraded areas
- measures to avoid the spread of weeds and pathogens, including:
 - site inductions
 - establishing clearing boundaries through use of GPS and on-ground demarcation
 - ensure vehicles are clean on entry
 - targeted weed control within the foreshore reserve based on weed mapping
 - weed monitoring
- measures to minimise vegetation clearing and avoid significant vegetation where required:
 - site inductions
 - establishing clearing boundaries through use of GPs and on-ground demarcation
 - ensure vehicles are clean on entry and provision of signage in areas of known wildlife activity
- measures to protect fauna and fauna habitat:
 - site inductions
 - establishing clearing boundaries through use of GPS and flagging
 - fauna inspections, trapping and translocation program
 - feral animal control

(Strategen, 2017b)

4. Assessment of application against clearing principles, planning instruments and other relevant matters

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

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

A total of 34 native vascular plant taxa from 28 plant genera and 15 plant families were recorded in the Capricorn Foreshore Reserve during the Level 2 flora and vegetation assessment (Strategen, 2016; Strategen, 2017a). The majority of taxa were recorded within the *Myrtaceae*, *Chenopodiaceae* and *Fabaceae* families.

Seventeen priority flora species have been recorded within the local area. The closest priority species to the application area is a priority 4 species which is recorded 400 metres north west of the application area.

No threatened or priority flora species were recorded within the survey area at the time of Level 2 flora and vegetation assessment (Strategen, 2016; Strategen, 2017a). The surveys were conducted during the prime flowering time for conservation significant species, which is the optimum time for correct identification.

The vegetation within the application area does not resemble a known threatened ecological community, however based on dominant taxa recorded, the known vegetation complex within the survey area and previous survey results, the application area may contain two priority 3 ecological communities (PEC) (Floristic community type (FCT) 29a – Coastal Shrublands on shallow sands, FCT 29b – Acacia Shrublands on taller dunes) (Strategen, 2017b). Whilst these PECs may occur in the application area, these FCTs are very well represented within surrounding Bush Forever Site 397.

As discussed in Principle (b) three species listed as specially protected under the *Biodiversity Conservation Act 2016* (BC Act) within the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*, have been recorded within the local area, being; Carnaby's cockatoo (*Calyptorhynchus latirostris*), woylie (*Bettongia penicillata* subsp. *ogilbyi*) and chuditch (*Dasyurus geoffroyi*) (Department of Biodiversity, Conservation and Attractions, 2007-). Based on the vegetation types identified, the application area does not provide significant habitat for any of the abovementioned fauna species.

The application area is not likely to contain priority or threatened flora, or significant fauna habitat. Therefore, 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

Three species listed as specially protected under the BC Act, within the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*, have been recorded within the local area, being; Carnaby's cockatoo (*Calyptorhynchus latirostris*), woylie (*Bettongia penicillata* subsp. *ogilbyi*) and chuditch (*Dasyurus geoffroyi*) (Department of Biodiversity, Conservation and Attractions, 2007-).

Carnaby's cockatoo is listed as endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Carnaby's cockatoo nests in large hollow-bearing trees, generally within woodlands or forests or in isolated trees (Commonwealth of Australia, 2012). The fauna survey of the application area reports that no evidence of roosting or nesting was recorded (Bamford Consulting Ecologists, 2017).

Carnaby's cockatoo has a preference for foraging habitat that includes jarrah and marri woodlands and forest heathland and woodland dominated by proteaceous plant species such as *Banksia* spp., *Hakea* spp. and *Grevillea* spp. (Commonwealth of Australia, 2012). The coastal heathland present within the application area provides minimal foraging value for Carnaby's cockatoo (Bamford Consulting Ecologists, 2017).

The chuditch is listed as vulnerable under the EPBC Act. Chuditch are now only present in approximately five per cent of their pre-European range. Most chuditch are now found in varying densities throughout the jarrah forest and south coast of Western Australia. Chuditch use a range of habitats including forest, mallee shrublands, woodland and desert. The densest populations have been found in riparian jarrah forest (DEC, 2012). Given the preferred habitat of this species, the application area is not likely to contain favourable habitat for this species.

Woylies were known to inhabit a variety of habitats including semiarid scrub, mallee, woodland and open forest, however currently the woylie is only known from two areas, Upper Warren and Dryandra Woodlands. Given the known range of this species it is unlikely to be present within the application area.

Given the above the application area is not likely to comprise of significant habitat for indigenous fauna and therefore the proposed clearing is not likely to be at variance to this Principle.

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

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

One threatened flora species has been recorded within the local area. This threatened flora species is a Eucalypt that grows in shallow soils over limestone. Suitable habitat for this species is not located within the application area.

In addition, the application area has been surveyed and no threatened flora was identified (Strategen 2016 and 2017b).

Given the above, 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

The closest mapped threatened ecological community (TEC) to the application area is 'Banksia Woodlands of the Swan Coastal Plain' which has been mapped three kilometres east of the application area.

This ecological community has a dominant *Banksia* component, which includes at least one of four key species—*Banksia attenuata* (candlestick banksia), *B. menziesii* (firewood banksia), *B. prionotes* (acorn banksia) and/or *B. ilicifolia* (holly-leaved banksia) (DotEE, 2016).

The vegetation identified within the application area is not commensurate with this TEC. Therefore, 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 application area is located within the Swan Coastal Plain IBRA bioregion. This bioregion has approximately 39 per cent of its pre-European vegetation extent remaining (Government of Western Australia, 2018a).

The application area is also mapped as Heddle Quindalup complex which retains approximately 60 per cent pre-European extent (Government of Western Australia, 2018b).

The local area retains approximately 35 per cent native vegetation (approximately 11,394 hectares).

The National Objectives and Targets for Biodiversity Conservation 2001-2005 include a target to have clearing controls in place that prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750 (Commonwealth of Australia 2001).

The application area does not contain high biodiversity or significant fauna habitat and therefore is not considered to be a significant remnant.

The IBRA bioregion, local area and vegetation complex all retain above the recommended 30 per cent threshold and therefore the application area is not likely to be a significant remnant in an area that has been extensively cleared.

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

	Pre-European Extent (ha)	Current Extent (ha)	% Remaining	Current Extent in All DBCA-Managed Land (ha)	Current percentage remaining within all DBCA managed land (%)
IBRA Bioregion (Government of Western Australia, 2018b)					
Swan Coastal Plain	1,501,222	578,997	38.6	222,767	15
Heddle Vegetation Complex (Government of Western Australia, 2018a)					

Quindalup Complex	54,574	32,983	60	5,992	11
-------------------	--------	--------	----	-------	----

(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 not at variance to this Principle

No watercourses or wetlands have been recorded in the vicinity of the application area. The closest mapped wetland is Loch McNess which is mapped approximately five kilometres east of the application area.

Given the above, the vegetation under application is not growing in, or in association with, an environment associated with a watercourse or wetland. Therefore the proposed clearing is not at variance to this Principle.

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

Proposed clearing may be at variance to this Principle

The application area is associated with coastal dune formations. Chief soils within the application area are mapped by the Department of Primary Industries and Regional Development (2018) as:

- Quindalup South youngest dune phase - Loose pale brown calcareous sand with no soil profile.
- Quindalup South water, beach phase - Undifferentiated beach sand.

These soils have a high risk of wind erosion and a low risk of water erosion due to the high infiltration rates associated with sands. Given its proximity to the coast, the proposed clearing has a high risk of wind erosion and therefore may be at variance to this Principle.

The requirement to commence development within one month of clearing will help to mitigate impacts associated with wind erosion.

(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 at variance to this Principle

Approximately 2.38 hectares of the application area is mapped within Bush Forever Site 397 which is known as 'Coastal Strip from Wilbinga to Mindarie'.

Bush Forever Site 289 is located approximately three kilometres south of the application area and Bush Forever Site 288 is located 4.5 kilometres east. Yanchep National Park overlaps Bush Forever Site 288.

Bush Forever sites within the local area form ecological linkages across the landscape. The proposed clearing will impact on the environmental values of Bush Forever Site 397 through the direct removal of vegetation, a potential reduction in the effectiveness of associated ecological linkages, and through the potential introduction/spread of weeds and dieback.

Weed and dieback management practices will assist in reducing the risk of introducing/spreading weeds and dieback in this conservation area.

The Department of Planning, Lands and Heritage (DPLH) advises that State Planning Policy 2.8 Bushland Policy for the Perth Metropolitan Region (SPP 2.8) section 5.1.1 recommends all proposals and decision making affecting a Bush Forever area should:

- recognise regionally significant bushland protection and its management as a primary purpose and a fundamental planning consideration in its own right as part of an area's essential environmental infrastructure;
- ensure that all reasonable steps have been taken to avoid, minimise and offset any likely adverse impacts on regionally significant bushland; and
- adopt or incorporate the impact assessment process and criteria set out in appendix 1 and 2 if impacts are unavoidable which indicates the offset package should provide for a net environmental gain in accordance with appendix 4.

To ensure the integrity of Bush Forever Site 397 is upheld, and the proposed works and clearing is consistent with SPP 2.8, DPLH recommends that an offset package is prepared by the proponent, prior to the clearing of native vegetation, in accordance with the WA Environmental Offsets Policy (2011) and with guidance from SPP 2.8 appendix 4 (DPLH, 2018).

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

Offset and revegetation conditions have been placed on the permit to address and mitigate impacts to Bush Forever.

(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 to be at variance to this Principle

No wetlands or watercourses have been mapped within the vicinity of the application area. Therefore the proposed clearing is not likely to deteriorate the quality of surface water.

Groundwater salinity within the application area is mapped at between 500 and 1,000 total dissolved solids, milligrams per litre. This level of groundwater salinity is classified as 'marginal'. Mapping produced by DPLH indicates that 100 per cent of the map unit has 100 per cent 'nil to moderate risk' of salinity. Therefore, the proposed clearing is not likely to deteriorate the quality of groundwater in the form of salinity.

Given the above, the proposed clearing is not likely to be 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

As discussed in Principle (g) the soil within the application is beach sand. Given the permeable nature of sand 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 City of Wanneroo has advised that the properties under application are reserved as Parks and Recreation under the Metropolitan Regional Scheme (MRS), and as such require development approval from the Western Australian Planning Commission (WAPC) under Clause 13 of the MRS (City of Wanneroo, 2017).

On 22 October 2018 the Western Australian Planning Commission (WAPC) issued an Approval to Commence Development for this project (WAPC, 2018).

No Aboriginal sites of significance have been mapped within the application area.

The clearing permit application (i.e. the proposed clearing of 1.72 hectares of native vegetation) was advertised on the Department of Water and Environmental Regulation's website on 22 November 2017 with a 21 day submission period. The revised application (i.e. the proposed clearing of 2.5 hectares of native vegetation) was advertised for a seven day public submissions period closing 7 September 2018. No public submissions have been received in relation to this application.

5. Applicant's Submissions

On 12 March 2018 DWER wrote to the applicants outlining that a preliminary assessment had been undertaken and significant impacts to Bush Forever Site 397 were identified. The applicants were invited to provide additional advice addressing the assessment including information on how impacts were intended to be avoided, minimised and offset. The applicants were also advised that in accordance with SPP 2.8, a 2:1 ratio would be required for any offset.

A response was received on 11 April 2018 advising the following:

- the application area has been strategically located in the most degraded portion of the foreshore reserve (the application area occupies 33 per cent of the area of the reserve identified as completely degraded and only 8 per cent of areas identified as being in good or better condition);
- the foreshore reserve currently contains multiple informal access tracks which have resulted in localised small scale fragmentation of Bush Forever Site 397 – the proposed development will formalise some of these tracks as boardwalks and concrete and gravel paths and decommission and rehabilitate others and therefore the works are not expected to significantly increase fragmentation;
- the decommissioning and rehabilitation of informal access tracks will total a minimum of 1 hectare of the foreshore reserve;
- following completion of the development, 0.7 hectares of the area cleared (i.e. batters) will be rehabilitated;
- conservation fencing will be installed at all proposed interfaces between the coastal node infrastructure and conservation/rehabilitation areas of the foreshore reserve; and
- the applicants had recently relinquished an additional 0.78 hectares of urban zoned land to be incorporated into the foreshore reserve in accordance with the conditions of a related subdivision approval.

On 1 June 2018, DWER responded to the applicants advising:

- the rehabilitation of 0.7 hectares of batters can be considered as mitigation, reducing the net significant residual impacts to Bush Forever Site 397 by 0.7 hectares;
- SPP 2.8 states that the proportion of rehabilitation that can be included in an offset is limited to 10 per cent for areas of very high conservation significance – therefore 0.324 hectares of the 1 hectare of rehabilitation of informal access tracks can be considered as part of an offset package; and
- the conservation fencing and provision of an additional 0.78 hectares of land cannot be considered as part of an offset package as they are already conditions of other approvals.

Further details of the proposed rehabilitation for the batters and the informal access tracks was requested as well as an additional offset to meet the 2:1 ratio requirement.

On 24 August 2018 and 15 November 2018, following further consultation with DWER, the applicants provided a revised mitigation and offsets package and further details of the proposed rehabilitation. The revised package comprised:

- rehabilitation of 1.16 hectares of the application area (mitigation);
- rehabilitation of 0.06 hectares of an access track within the foreshore reserve (offset);
- a monetary contribution for the acquisition of 2.38 hectares of native vegetation for conservation (offset).

6. Suitability of Proposed Offset

The proposed clearing will result in the loss of up to 2.5 hectares of native vegetation, the majority of which is in a very good (Keighery, 1994) condition. The significant residual impact of the proposed clearing is the loss of up to 2.38 hectares of Bush Forever Site 397.

The applicant avoided, minimised and mitigated impacts to Bush Forever Site 397 by proposing to revegetate and rehabilitate 0.65 hectares (0.25 hectares of full revegetation and 0.4 hectares of low fuel mitigation) within Bush Forever Site 397. This reduced the impact to the Bush Forever Site from 2.38 hectares to 1.73 hectares. To achieve a 2:1 offset ratio, consistent with State Planning Policy 2.8, an offset of 3.46 (2x1.73) hectares was required.

To address the remaining residual environmental impacts, the applicant has committed to revegetating 0.34 hectares, outside of the application area, within Bush Forever Site 397. This brought the offset requirement down to 3.12 (3.46 - 0.34) hectares. The remaining 3.12 hectares will be offset through the provision of a monetary contribution of \$44,828 to the Department of Water and Environmental Regulation for the purchase of 3.12 hectares of native vegetation with similar values to the area to be cleared.

DWER considers the mitigation measures and the two offsets outlined above are adequate to counterbalance the significant residual impacts to Bush Forever Site 397.

Note: The applicant has proposed a further 0.19 hectares of revegetation, however it is located outside of Bush Forever Site 397 and therefore has not been considered as an offset for this project.

7. References

- Bamford Consulting Ecologists (2017) Capricorn Coastal Reserve, Fauna Assessment. Prepared for Strategen Environmental. February 2017.
- City of Wanneroo (2017) Planning advice for Clearing Permit Application CPS 7809/1 (DWER Ref: A1579863).
- 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. Department of Sustainability, Environment, Water, Populations and Communities, Canberra.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed January 2018.
- Department of Environment and Conservation (DEC) (2012). Chuditch (*Dasyurus geoffroii*) Recovery Plan. Wildlife Management Program No. 54.
- Department of Primary Industries and Regional Development (2018). NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (accessed February 2018).
- Department of Planning, Lands and Heritage (DPLH) (2018) Bush Forever advice for Clearing Permit Application CPS 7809/1 (DWER Ref: A1603138).
- Department of the Environment and Energy (DotEE) (2016) *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (s 266B). Approved Conservation Advice (incorporating listing advice) for the *Banksia* Woodlands of the Swan Coastal Plain ecological community.
- Government of Western Australia (2000) Bush Forever Volumes 1 and 2. Western Australian Planning Commission, Perth WA.
- Government of Western Australia. (2018a). 2017 South West Vegetation Complex Statistics. Current as of October 2017. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>
- Government of Western Australia (2018b) 2017 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of December 2017. WA Department of Biodiversity, Conservation and Attractions, <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Strategen Environmental (2016) Capricorn Foreshore Reserve, flora and vegetation survey. Prepared for Acumen Development Solutions.
- Strategen Environmental (2017a) Capricorn Foreshore reserve, Detailed flora and vegetation survey. Prepared for Acumen Development Solutions. December 2017.
- Strategen Environmental (2017b) Native Vegetation Clearing Permit Application (Purpose Permit) – Supporting Documentation. Capricorn Yanchep Foreshore Reserve. Prepared for Acumen Development Solutions. October 2017.
- Western Australian Planning Commission (WAPC) (2018) Approval to Commence Development dated 22 October 2018 (DWER Ref: A1767151).