



## CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

<b>Purpose Permit number:</b>	CPS 8792/1
<b>Permit Holder:</b>	Satterley Property Group Pty Ltd
<b>Duration of Permit:</b>	18 September 2020 to 18 September 2025

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 an asset protection zone for an adjacent commercial development.

**2. Land on which clearing is to be done**

Lot 5002 on Deposited Plan 60315, Butler

**3. Area of Clearing**

The Permit Holder shall not clear more than 0.1 hectares of native vegetation within the area cross-hatched yellow on attached Plan 8792/1.

**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. 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*:

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

## 7. Clearing not authorized

- (a) This Permit does not authorise the Permit Holder to clear any living or dead Tuart (*Eucalyptus gomphocephala*) tree with a diameter of 500 millimetres or more at breast height located at the following coordinates:

<b>Easting</b>	<b>Northing</b>
377537	6499424
377555	6499395
377583	6499456
377638	6499414

- (b) Prior to undertaking any clearing, the locations of each *Eucalyptus gomphocephala* tree with a diameter of 500 millimetres or more at breast height at the locations specified in (a) are to be demarcated through flagging.

## **PART III – RECORD KEEPING AND REPORTING**

### 8. 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:

- 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;
- the date that the area was cleared;
- the size of the area cleared (in hectares)
- purpose for which clearing was undertaken;
- actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 5 of this Permit;
- actions taken to minimise the risk of the introduction and spread of *dieback* and *weeds* in accordance with condition 6 of this Permit; and
- actions taken in accordance with condition 7 of this permit.

### 9. Reporting

The Permit Holder must provide to the *CEO* the records required under condition 8 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*;

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

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

***mulch*** means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

*weed/s* means any plant -

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



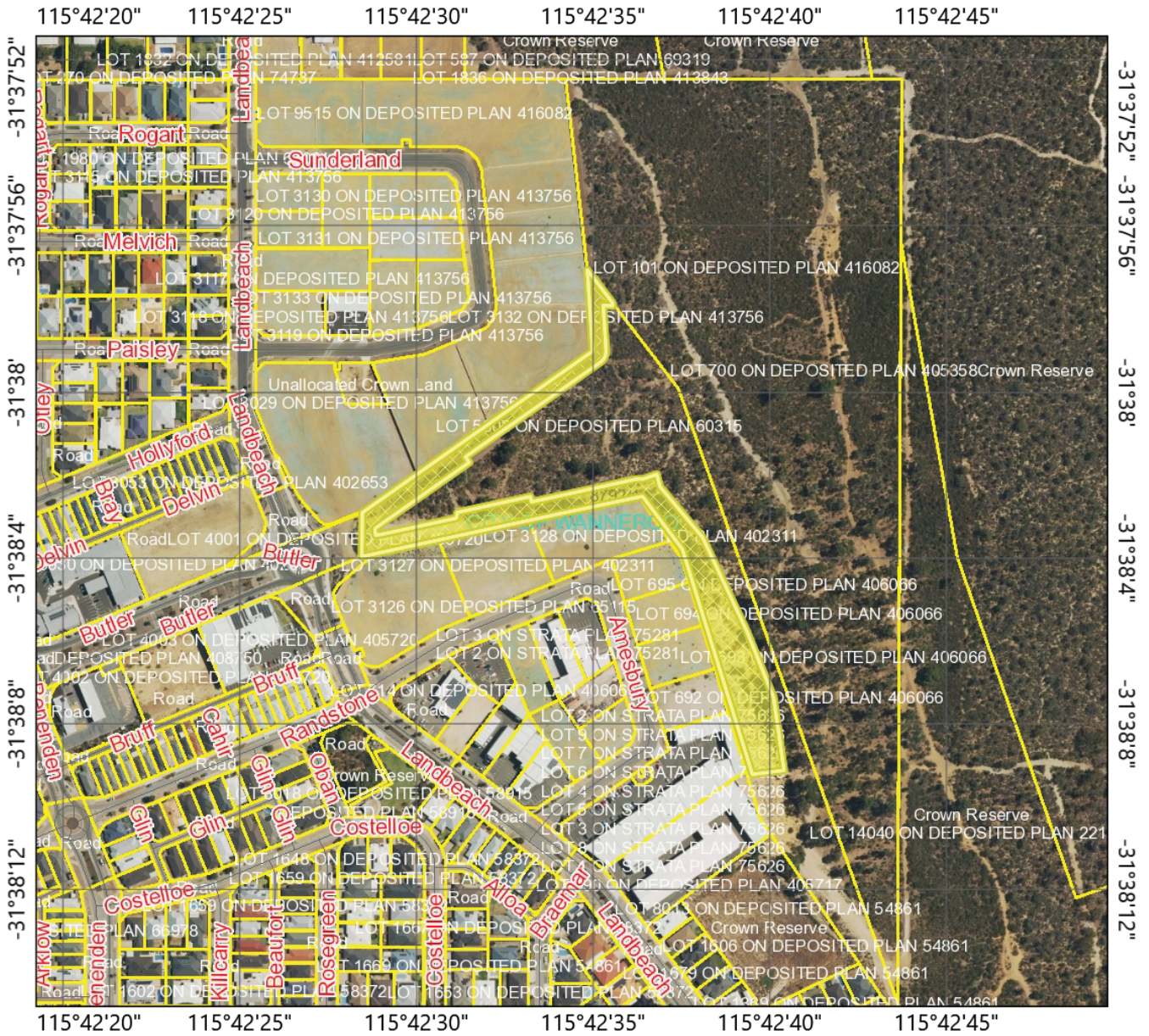
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Meenu Vitarana  
A/Manager  
NATIVE VEGETATION REGULATION

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

26 August 2020

# Plan 8792/1




## Legend

- CPS areas approved to clear
- Local Government Authorities
- Roads - State Roads
- Roads - Major Roads
- Roads - Minor Roads
- Land Tenure

0.1      0.07      0.1      Kilometers



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

Disclaimer: This map is used as a generic static output for reference purposes. Information on this map may or may not be accurate, current, or otherwise reliable. While the Department of Water and Environmental Regulation, has made all reasonable efforts to ensure the accuracy of this data, the department accepts no responsibility for any inaccuracies and persons relying on this data do so at their own risk.

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Government of Western Australia  
 Department of Water and Environmental Regulation



# Clearing Permit Decision Report

## 1. Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 8792/1
<b>Permit type:</b>	Purpose permit
<b>Applicant name:</b>	Satterley Property Group Pty Ltd
<b>Application received:</b>	23/01/2020
<b>Application area:</b>	0.1 hectares (ha) of native vegetation
<b>Purpose of clearing:</b>	Asset protection zone for commercial development
<b>Method of clearing:</b>	Mechanical
<b>Property:</b>	Lot 5002 on Deposited Plan 60315
<b>Location (LGA area/s):</b>	Wanneroo
<b>Localities (suburb/s):</b>	Butler

### 1.2. Description of clearing activities

The vegetation applied to be cleared is 0.1 hectares within a single contiguous 1.19 hectare footprint (clearing footprint). (see Figure 1, Section 1.5). The clearing footprint comprises a strip of land ranging from approximately 10 to 30 metres wide surrounding a future commercial development (Brighton Business Park North Development) to the west. The application area was not revised throughout the assessment process.

### 1.3. Decision on application and key considerations

<b>Decision:</b>	Granted
<b>Decision date:</b>	26 August 2020
<b>Decision area:</b>	0.1 hectares of native vegetation within a 1.19 hectare footprint as depicted in Section 1.5, below.

### 1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Water and Environmental Regulation (DWER) on 23 January 2020. DWER advertised the application for public comment and no submissions were received.

In undertaking their assessment, and in accordance with section 51O of the EP Act, the Delegated Officer has given consideration to the Clearing Principles in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments, and any other pertinent matters they deemed relevant to the assessment (see Section 3).

In particular, the Delegated Officer has determined that:

- the clearing is not likely to have a significant impact on the Banksia Woodlands of the Swan Coastal Plain state listed priority ecological community (PEC) and the Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain state listed PEC, given the extent of the clearing (see Section 3.2.1);
- the clearing is not likely to have a significant impact on the threatened Carnaby's cockatoo given that a condition has been placed on the permit to retain tuart trees with a diameter at breast height of 500 mm or more (i.e. potential breeding trees) and the small extent of proposed clearing (see Section 3.2.2); and

- the implementation of a suitable weed and dieback management condition is appropriate to mitigate the impact of spreading weeds and dieback into the adjacent Neerabup National Park (see Section 3.2.3).

The Delegated Officer also took into consideration that a large portion of the application area is already approved for clearing under Clearing Permit CPS 8753/1 to facilitate the Mitchell freeway extension project and therefore the proposed clearing is considered to be consistent with State Planning Policy 3.7.

In determining to grant a clearing permit subject to conditions, the Delegated Officer found that the proposed clearing is not likely to lead to an unacceptable risk to the environment.

### 1.5. Site map

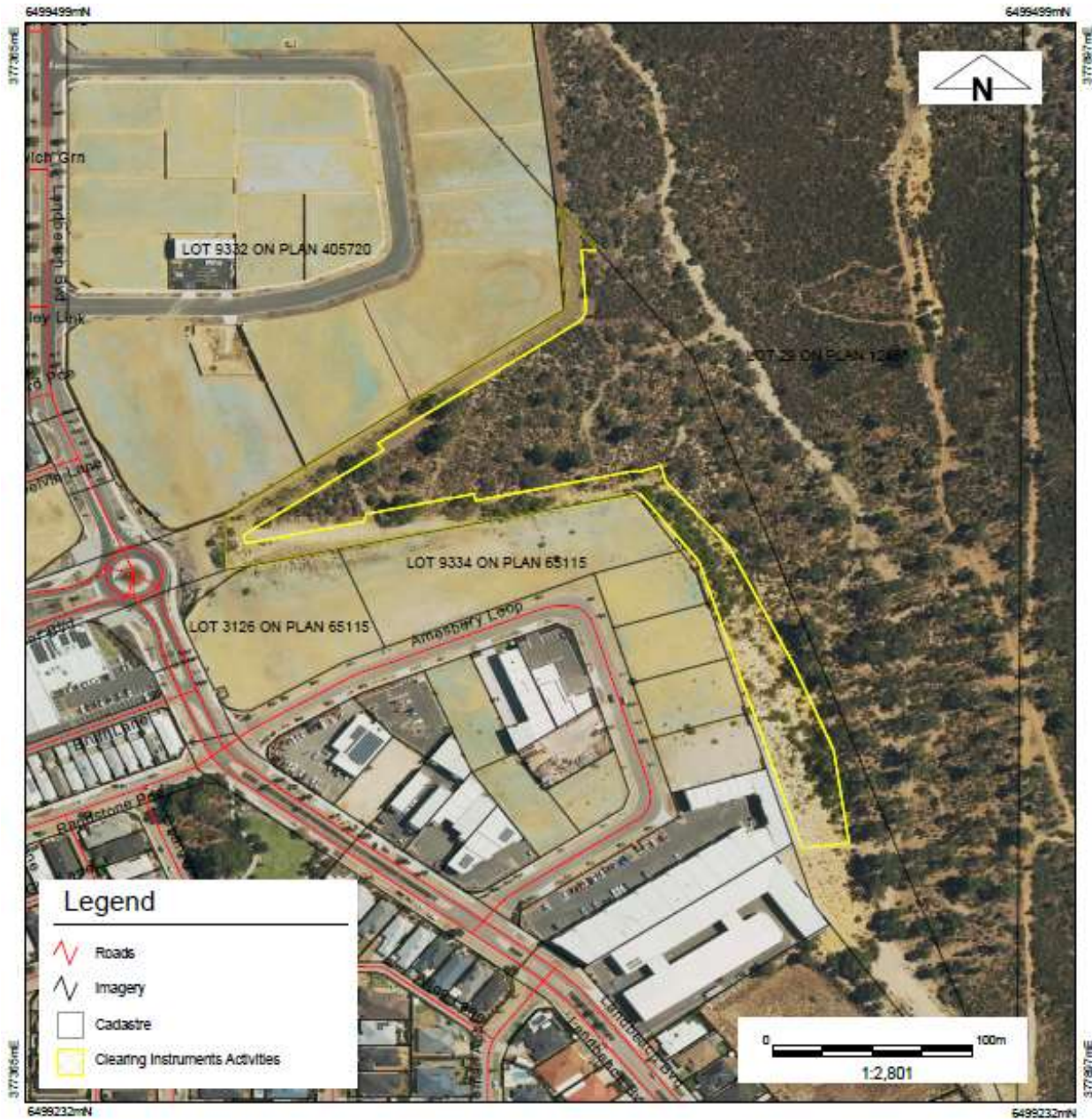


Figure 1. Map of the application area.

The area cross-hatched yellow indicates the area authorised to be cleared under the granted clearing permit.

## 2. Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.3), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

1. the precautionary principle;
2. the principle of intergenerational equity; and
3. the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)

Relevant policies considered during the assessment were:

- *State Planning Policy 3.7 – Planning in Bushfire Prone Area* (Government of Western Australia, 2017)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)
- The Guidelines for Planning in Bushfire-Prone Areas (WAPC, 2015)

## 3. Detailed assessment of application

### 3.1. Avoidance and mitigation measures

The applicant advised the following in regards to avoidance and mitigation measures considered for the proposed clearing:

- Four *Eucalyptus gomphocephala* trees identified as being potential roosting and breeding habitat within the application area will be retained; and
- The proposed clearing will be undertaken in a manner which will avoid impacts to surrounding vegetation through clearly demarcating prior to clearing activities, not more than seven days prior to clearing commencing.

### 3.2. Assessment of environmental impacts

In assessing the application in accordance with section 51O of the EP Act, the Delegated Officer has examined the application and site characteristics (Appendix B) and considered whether the clearing poses a risk to environmental values. The assessment against the Clearing Principles is contained in Appendix C.

This assessment identified that the clearing may pose a risk to the environmental values of biological (flora and fauna) values and significant remnant vegetation and conservation areas, and that these required further consideration. The detailed consideration and assessment of the clearing impacts against the specific environmental values is provided below. Where the assessment found that the clearing presents an unacceptable risk to environmental values, conditions aimed at controlling and/or ameliorating the impacts have been imposed under sections 51H and 51I of the EP Act. These are also identified below.

#### 3.2.1. Environmental value: biological values (flora) – Clearing Principle (a)

**Assessment:** The application area contains 0.1 hectares of vegetation type VT1 in Very Good (Keighery, 2014) condition. This vegetation is considered to be part of a patch of the Banksia Woodlands of the Swan Coastal Plain state listed priority ecological community (PEC) and federally listed threatened ecological community (TEC) (hereafter referred to as “Banksia Woodlands PEC/TEC”) according to the approved conservation advice for this TEC (TSSC, 2016 and Strategen, 2020). However, given the small extent of the clearing, it is not considered that the proposed clearing will have a significant impact on the Banksia Woodlands PEC/TEC.

The Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain state listed PEC and federally listed TEC (hereafter referred to as “Tuart Woodlands PEC/TEC”) is also considered likely to be present

within the application area according to the approved conservation advice for this TEC (DotEE, 2019), given the presence of tuart trees within the application area and surrounding vegetation (Strategen 2016, 2020) and that a mapped area of Tuart TEC/PEC overlaps the application area. However, given that the applicant has stated that they wish to retain the four tuart trees within the application area, the proposed clearing is unlikely to have a significant impact on this ecological community.

Areas of vegetation mapped as VT1 may also provide suitable habitat for four priority flora species. These species were not found within the application area in vegetation surveys of the application area undertaken by Strategen (2016, 2020). Given the extent of the application area, it is considered reasonably unlikely that these species are present within the application area, and should they be present, any impacts are likely to be minimal.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered not significant subject to relevant conditions (see below) in relation to this environmental value.

Conditions: No clearing authorised of four identified tuart trees within the application area.

### **3.2.2. Environmental value: biological values (fauna) – Clearing Principles (a) and (b)**

Assessment: Banksia vegetation within the application area (i.e. areas mapped as VT1) is considered likely to provide foraging habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*) (Commonwealth of Australia, 2012). Four tuart trees of a diameter greater than 500 mm (i.e. large enough to contain suitable black cockatoo breeding hollows), two of which may contain suitable hollows for black cockatoo breeding) were also identified within the application area (Strategen 2016, 2020), and it is noted that the application area is within the known breeding range of this species (Commonwealth of Australia, 2012). These trees may also provide roosting habitat for Carnaby's cockatoos, and the application area is located 2.4 kilometres from a known Carnaby's cockatoo roost site. However, given the small extent of the clearing and that tuart trees within the application area will be retained, it is considered unlikely that the proposed clearing will have a significant impact to Carnaby's cockatoos.

The application area may also provide habitat for four priority and one other specially listed species, however given the small extent of the proposed clearing, it is unlikely to have a significant impact on these species.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered not significant subject to relevant conditions (see below) in relation to this environmental value.

Conditions: No clearing authorised of four identified tuart trees within the application area.

### **3.2.3. Environmental value: significant remnant vegetation and conservation areas – Clearing Principle (h)**

Assessment: Neerabup National park is located approximately 140 north and east of the application area, associated with a Bush Forever Area (Site 383). The proposed clearing may have an impact on the environmental values of this area by increasing the potential to introduce dieback and weeds into this area, and as such measures to be taken during clearing to minimise these impacts will be ensured via permit conditions. Given the small extent of the application area, the proposed clearing is otherwise not likely to impact upon values of this conservation area.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered not significant subject to relevant conditions (see below) in relation to this environmental value.

Conditions: Dieback and weed management – specifying management measures to be undertaken to reduce the risk of spreading weeds and dieback (*Phytophthora cinnamomi*).

## **3.3. Relevant planning instruments and other matters**

A sub-division approval has been issued under the *Planning and Development Act 2005* for the properties adjacent to the west of the application area to facilitate a commercial precinct (Strategen, 2020b). As the subdivision area is predominantly designated as bushfire prone on the WA Map of Bush Fire Prone Areas (DFES 2018), a Bushfire Management Plan (BMP) was required to support the subdivision application. The Brighton Business Park North Bushfire Management Plan (Strategen, 2019) thus was prepared to support the subdivision application, and the proposed clearing for the asset protection zone (APZ) is in accordance with this plan.

The Guidelines for Planning in Bushfire-Prone Areas (WAPC, 2017), which support State Planning Policy 3.7 – Planning in Bushfire Prone Areas (WAPC, 2015) state that “APZ should be contained solely within the boundaries of the lot on which the building is situated, except in instances where the neighbouring lot or lots will be managed in a low-fuel state on an ongoing basis, in perpetuity” (WAPC, 2017). Although the APZ for which this clearing is proposed is outside the boundaries of the properties of the commercial development properties (i.e. where buildings will be situated), Satterley proposes to manage the clearing permit area in perpetuity, under an agreement with WAPC (the current landowners of Lot 5002 on Deposited Plan 60315) to provide on-going access, for the purpose of maintaining the vegetation within the clearing permit application area in a low fuel state (Satterley, 2020b). Given that WAPC have provided Satterley with authority to access and clear the land, it is considered that the APZ is able to be



maintained in a low fuel state under this clearing permit whilst WAPC are the landowners (Satterley, 2020b). Furthermore, Clearing Permit CPS 8753/1, which covers a significant portion of the vegetation within the application area, was granted to Main Roads Western Australia on 13 July 2020 to facilitate the Mitchell Freeway extension project (DWER, 2020), and therefore it is considered that the proposed clearing area of CPS 8792/1 will be retained in a low-fuel state in perpetuity.

The City of Wanneroo advised DWER that the Western Australian Planning Commission (WAPC) has previously endorsed the Butler Ridgewood ASP 27 and the associated Brighton Business Park North Bushfire Management Plan, which recommends that an Asset Protection Zone of varying separation distances is implemented surrounding a range of Lots abutting Lot 5002 (City of Wanneroo, 2020). The City noted that supporting documentation included with this referral details that the adjoining land is to be subject to significant clearing as a result of the Mitchell Freeway extension. As such, considering the above, the City did not object to the removal of 0.1 hectares of native vegetation within a 1.19 hectare footprint for the purpose of implementing an APZ for an adjacent commercial development provided it is consistent with the Brighton Business Park North Bushfire Management Plan.

Noting the above and that the proposed clearing of native vegetation is unlikely to have significant environmental impacts, DWER determined to grant a clearing permit for the proposed clearing for an APZ outside the boundaries of the lot/lots within which the development is proposed.

No Aboriginal heritage areas are mapped within the application area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

### Appendix A – Additional information provided by applicant

Summary of information	Consideration of information
Satterley proposes to manage the clearing permit area in perpetuity, under an agreement with the current landowner to provide on-going access, for the purpose of maintaining the vegetation within the clearing permit application area in a low fuel state	Given that Authority has been provided by WAPC, the current landowners, to access and clear the land, it is considered that the APZ is able to be maintained in a low fuel state whilst WAPC are the landowners.
Subdivision approval provided, with condition referring to a bushfire management plan	Demonstrates that the Bushfire Management Plan specifying the proposed asset protection zone is required for the commercial development

### Appendix B – Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

#### 1. Site characteristics

Site characteristic	Details
Local context	The proposed clearing area is part of an expansive tract of native vegetation. It is adjacent to native vegetation on the east and commercial development to the west. The proposed clearing area is on the western edge of a large (approximately 1600 ha) area of native vegetation with occasional tracks and roads throughout it. Spatial data indicates the local area (10 km radius of the proposed clearing area) retains approximately 45 per cent of the original native vegetation cover.
Vegetation description	A Reconnaissance flora and vegetation survey undertaken in November 2019 (Strategen, 2020) indicates the vegetation within the proposed clearing area consists of the following vegetation types: <ul style="list-style-type: none"> <li>VT1 (0.1 hectares): Very open woodland of <i>Banksia attenuata</i> and <i>Eucalyptus gomphocephala</i> and occasionally <i>Eucalyptus marginata</i> over heath of</li> </ul>

Site characteristic	Details
	<p><i>Hibberta hypericoides</i>, <i>Xanthorrhoea pressii</i> and <i>Acacia pulchella</i> over the herbland of mixed native species of grey sandy soils;</p> <ul style="list-style-type: none"> <li>• VT2 (0.18 hectares): Mature revegetation. Closed shrubland of <i>Acacia saligna</i> over heath of mixed native species on yellow sand on manmade batter slopes.</li> <li>• VT3 (0.37 hectares): Recent vegetation. Open shrubland of <i>Acacia rostellifera</i>, <i>Templetonia retusa</i> and <i>Rhagodia baccata</i> over herbland of mixed native species on yellow sand on manmade batter slopes.</li> <li>• Cleared areas (0.54 ha).</li> </ul> <p>Vegetation types VT2 and VT3 comprise revegetation undertaken by Satterley in 2016 for the purpose of creating an aesthetically acceptable slope and batter (Strategen, 2020).</p> <p>The full survey descriptions and mapping are available in Appendix E.</p> <p>Vegetation type VT1 is partly consistent with the Beard mapped vegetation type:</p> <ul style="list-style-type: none"> <li>• Cottesloe Complex-Central and South (52): Mosaic of woodland of <i>Eucalyptus gomphocephala</i> (Tuart) and open forest of <i>Eucalyptus gomphocephala</i> (Tuart) - <i>Eucalyptus marginata</i> (Jarrah) - <i>Corymbia calophylla</i> (Marri) (Hedde, 1980).</li> </ul>
Vegetation condition	<p>A Reconnaissance flora and vegetation survey undertaken in November 2019 (Strategen, 2020) indicates the vegetation within the proposed clearing area ranged from Completely Degraded along the cleared tracks to Very Good within the remnant native vegetation (i.e. VT1) (Keighery, 1994).</p> <p>The full Keighery condition rating scale is provided in Appendix D, below.</p>
Soil description	<p>The soil is mapped as:</p> <ul style="list-style-type: none"> <li>• Western portion - Karrakatta shallow soils Phase (<i>Map Unit 211Sp_KIs</i>): Low hills and ridges. Bare limestone or shallow siliceous or calcareous sand over limestone. Dense low shrub dominated by <i>Dryandra sessilis</i>, <i>Melaleuca huegellii</i> and species of <i>Grevillea</i>.</li> <li>• Eastern portion - Karrakatta Sand Yellow Phase (<i>Map Unit 211Sp_Ky</i>): Low hilly to gently undulating terrain. Yellow sand over limestone at 1-2 m. <i>Banksia</i> spp. woodland with scattered emergent <i>E. gomphocephala</i> and <i>E. marginata</i> and a dense shrub layer (DPIRD, 2017).</li> </ul>
Land degradation risk	<ul style="list-style-type: none"> <li>• Map Unit 211Sp_KIs: <ul style="list-style-type: none"> <li>○ Flood risk: &lt;3% of the map unit has a moderate to high flood risk</li> <li>○ Waterlogging risk: &lt;3% of map unit has a moderate to very high waterlogging risk</li> <li>○ Wind erosion risk: 50-70% of map unit has a high to extreme wind erosion risk</li> <li>○ Water erosion risk: 50-70% of map unit has a high to extreme water erosion risk</li> <li>○ Subsurface acidification risk: 3-10% of map unit has a high subsurface acidification risk or is presently acid</li> <li>○ Phosphorus export risk: 3-10% of map unit has a high to extreme phosphorus export risk</li> <li>○ Salinity risk: &lt;3% of map unit has a moderate to high salinity risk or is presently saline</li> </ul> </li> <li>• Map Unit 211Sp_Ky: <ul style="list-style-type: none"> <li>○ Flood risk: &lt;3% of the map unit has a moderate to high flood risk</li> <li>○ Waterlogging risk: &lt;3% of map unit has a moderate to very high waterlogging risk</li> <li>○ Wind erosion risk: &gt;70% of map unit has a high to extreme wind erosion risk</li> <li>○ Water erosion risk: &gt;70% of map unit has a high to extreme water erosion risk</li> <li>○ Subsurface acidification risk: &gt;70% of map unit has a high subsurface acidification risk or is presently acid</li> </ul> </li> </ul>

Site characteristic	Details
	<ul style="list-style-type: none"> <li>○ Phosphorus export risk: 3-10% of map unit has a high to extreme phosphorus export risk</li> <li>○ Salinity risk: &lt;3% of map unit has a moderate to high salinity risk or is presently saline</li> </ul>
Waterbodies	The desktop assessment and aerial imagery indicated that no watercourses or wetlands transect the application area. The closest mapped wetland, Carabooda Lake, is located approximately 1.63 km northeast of the application area. The application area is within an area of consanguineous wetland suites (Yanchep).
Conservation areas	The closest conservation area, Neerabup National Park, is located approximately 140 north and east of the application area. A Bush Forever Area (Site 383) is associated with this National Park.
Climate and landform	Topography: 25-45m AHD Rainfall: 800 mm Evapotranspiration: 700 mm Groundwater salinity: 500-1000 mg/L TDS Hydrogeology: Surficial sediments - shallow limestone aquifers, calcrete lithology Depth to groundwater: Approx. 22 - 43 m below ground level (DWER, 2020)

## 2. Flora, fauna and ecosystem analysis

With consideration for the site characteristics set out above, relevant datasets (see Appendix F) and biological survey information, the following conservation significant flora and fauna species, and ecological communities may be impacted by the clearing.

Species / Ecological Community	Listing	Distance of closest record to application area (km)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify? (Y, N, N/A)
<b>Flora</b>						
<i>Acacia benthamii</i>	P2	4.4	Y	Y	-	N
<i>Baeckea sp. Limestone</i> (N. Gibson & M.N. Lyons 1425)	P1	3.8	Y	Y	-	N
<i>Jacksonia sericea</i>	P4	5	Y	Y	-	N
<i>Leucopogon sp. Yanchep</i> (M. Hislop 1986)	P3	1	Y	Y	-	N
<b>Ecological Communities</b>						
Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	P3	0	Y	Y	-	Y
Tuart ( <i>Eucalyptus gomphocephala</i> ) woodlands and forests of the Swan Coastal Plain	P3	0	Y	Y	-	Y
<b>Fauna</b>						

Species / Ecological Community	Listing	Distance of closest record to application area (km)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify? (Y, N, N/A)
<i>Calyptrorhynchus latirostris</i>	T	0.44	-	-	Y	Y
<i>Falco peregrinus</i>	OS	6.9	-	-	Y	N
<i>Hylaeus globuliferus</i>	P3	9.6	-	-	Y	N
<i>Neelaps calonotos</i>	P3	5.3	-	-	Y	N
<i>Synemon gratiosa</i>	P4	1.7	-	-	Y	N
<i>Tyto novaehollandiae novaehollandiae</i>	P3	9.5	-	-	Y	N

### 3. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	% remaining	Current extent in all DBCA managed land (ha)	% current extent in all DBCA managed land (proportion of pre-European extent)
IBRA bioregion					
Swan Coastal Plain <sup>1</sup>	1,501,221.93	579,813.47	38.62	222,916.97	14.85
Vegetation complex					
Cottesloe Complex-Central and South <sup>2</sup>	45,299.61	14,567.87	32.16	6,606.12	14.58

<sup>1</sup> Government of Western Australia (2019a)

<sup>2</sup> Government of Western Australia (2019b)

## Appendix C – Assessment against the Clearing Principles

Assessment against the Clearing Principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> “Native vegetation should not be cleared if it comprises a high level of biodiversity.”</p> <p><u>Assessment:</u></p> <p>The proposed clearing area may contain regionally significant flora, fauna, habitats and assemblages of plants.</p>	May be at variance	Yes: Refer to Sections 3.2.1 and 3.2.2 above.
<p><u>Principle (b):</u> “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.”</p> <p><u>Assessment:</u></p> <p>The proposed clearing area contains habitat for conservation significant fauna.</p>	May be at variance	Yes: Refer to Section 3.2.2 above.

Assessment against the Clearing Principles	Variance level	Is further consideration required?
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u></p> <p>The proposed clearing area is unlikely to contain habitat for threatened flora species listed under the BC Act.</p>	Not likely to be at variance	No
<p><u>Principle (d):</u> <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>The proposed clearing area does not contain species that can indicate a threatened ecological community.</p>	Not likely to be at variance	No
<b>Environmental values: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The extents of the mapped vegetation type and native vegetation in the local area are consistent with the national objectives and targets for biodiversity conservation in Australia. Vegetation in the proposed clearing area is not considered to significantly contribute to an ecological linkage in the local area.</p>	Not likely to be at variance	No
<p><u>Principle (h):</u> <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>Given the distance to the nearest conservation area, the proposed clearing may have an impact on the environmental values of adjacent conservation areas.</p>	May be at variance	Yes: Refer to Section 3.2.3 above.
<b>Environmental values: land and water resources</b>		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>Given no water courses or wetlands are recorded within the proposed clearing area, the clearing is unlikely to impact on- or off-site hydrology and water quality.</p>	Not likely to be at variance	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils are highly susceptible to wind erosion, water erosion, and subsurface acidification. Noting the extent of the proposed clearing, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not likely to be at variance	No

Assessment against the Clearing Principles	Variance level	Is further consideration required?
<p><u>Principle (i):</u> “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.”</p> <p><u>Assessment:</u></p> <p>Given no water courses, wetlands or Public Drinking Water Sources Areas are recorded within the proposed clearing area and the depth to groundwater, the clearing is unlikely to impact surface or ground water quality.</p>	Not likely to be at variance	No
<p><u>Principle (j):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</p> <p><u>Assessment:</u></p> <p>The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p> <p>Given no water courses or wetlands are recorded within the proposed clearing area, the clearing is unlikely to contribute to waterlogging.</p>	Not likely to be at variance	No

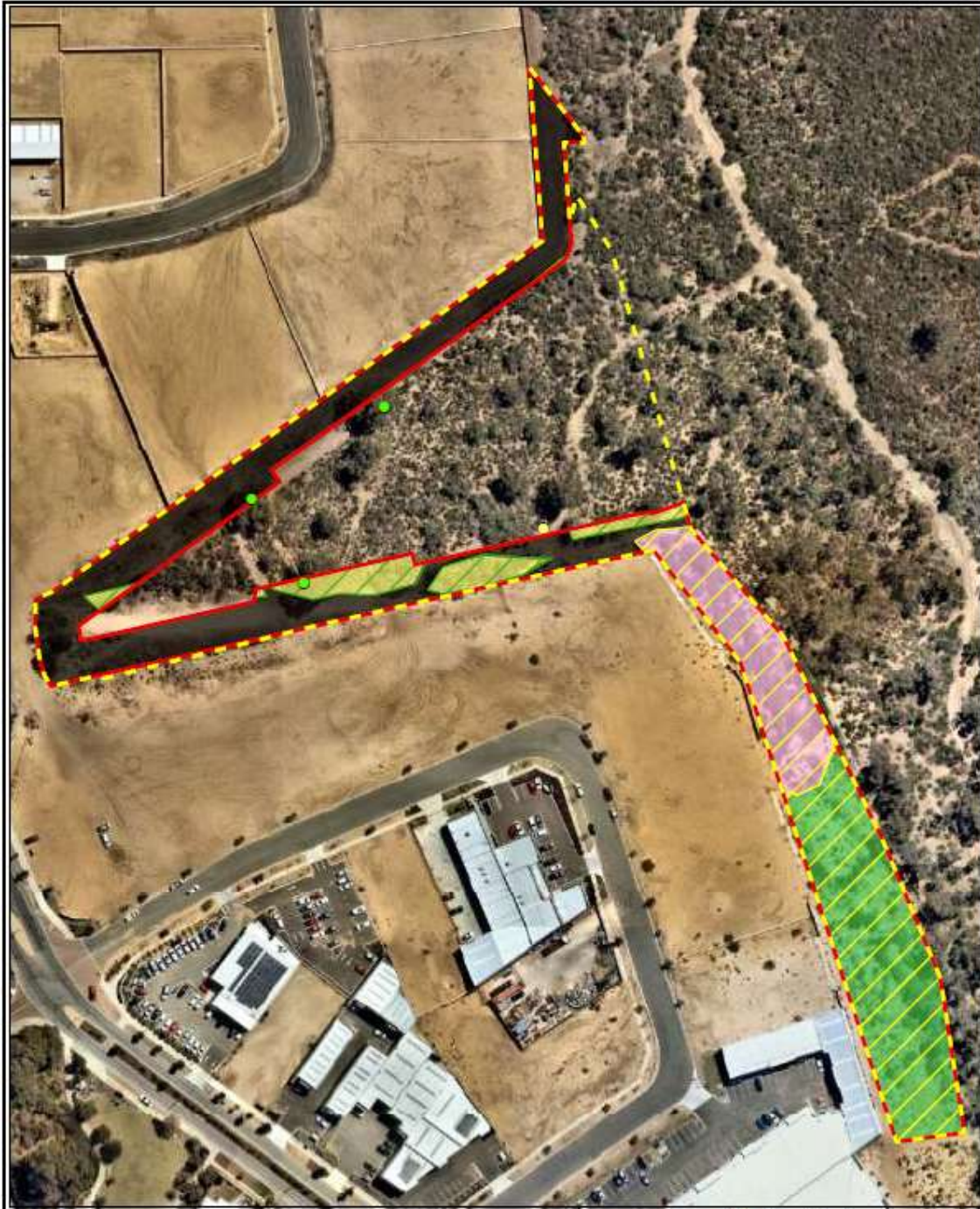
#### Appendix D – Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

##### Measuring Vegetation Condition for the South West and Interzone Botanical Province (Keighery, 1994)

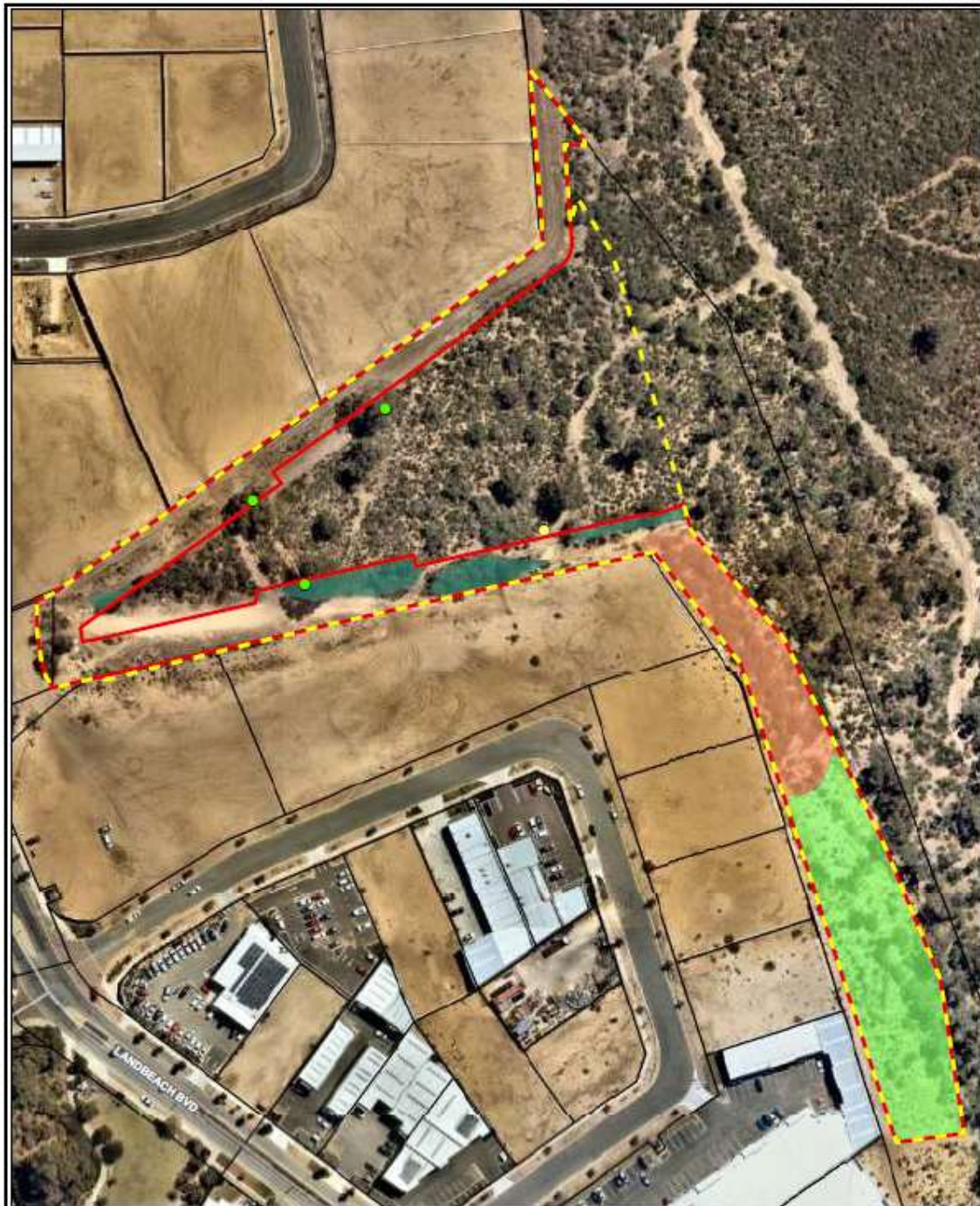
Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very Good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely Degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix E – Biological survey information excerpts



<b>Legend:</b> Project area Survey area <b>Fauna habitat</b> <i>Eucalyptus gomphocephala</i> (Healthy) <i>Eucalyptus sp.</i> (Dead) <b>Vegetation condition</b> Very good Good <b>Vegetation type</b> VT1 VT2 VT3 Cleared (0.66 ha)	Scale 1:1,750 at A4	0 10 20 metres	Landbeach Boulevard Butler, WA
	Coord. Sys. GDA 1994 MGA Zone 50		VEGETATION TYPES AND CONDITION
	Job No: 57328		FIGURE 2.3
	Client: Satterley Property Group		
Version: A	Date: 18-Dec-2019		
Drawn By: dhatcher	Checked By: AH		

Figure 2 – Vegetation mapping within the application area (Strategen, 2020)



<b>Legend:</b> Project area Survey area Cadastral boundary Black Cockatoo foraging quality CBC – moderate / FRTBC – very poor CBC – nil / FRTBC – nil CBC – very poor / FRTBC – very poor  <b>Fauna habitat</b> <i>Eucalyptus gomphocephala</i> (Healthy) <i>Eucalyptus</i> sp. (Dead) Roads (MRWA)	Scale 1:1,750 at A4 	Landbeach Boulevard Butler, WA  <b>BLACK COCKATOO HABITAT</b>
	Coord. Sys. GDA 1994 MGA Zone 50 	<b>FIGURE 2.4</b> 
	Job No: 57328 Client: Satterley Property Group	Version: A Date: 18-Dec-2019
	Drawn By: dhatcher Checked By: AH	

Figure 3 – Black cockatoo habitat within the application area (Strategen, 2020)

**Appendix F – References and databases**



## 1. GIS datasets

Publicly available GIS Databases used (sourced from [www.data.wa.gov.au](http://www.data.wa.gov.au)):

- Aboriginal Heritage Places (DPLH-001)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Regional Parks (DBCA-026)
- Soil and Landscape Mapping – Best Available

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

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