



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 9960/3
File Number: DWERVT11431
Duration of Permit: From 13 April 2023 to 13 April 2025

PERMIT HOLDER

City of Wanneroo

LAND ON WHICH CLEARING IS TO BE DONE

Reef Break road reserve (PIN 12063086, 12063087, 12421538), Two Rocks
Two Rocks Road Reserve (PIN 12225492), Yanchep and Two Rocks

AUTHORISED ACTIVITY

The permit holder must not clear more than 1.03 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 and 2 of Schedule 1.

CONDITIONS

1. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 13 April 2025.

2. Avoid, minimise, and reduce impacts and extent of clearing

In determining the *native vegetation* authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

- (a) avoid the clearing of *native vegetation*;
- (b) minimise the amount of *native vegetation* to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

3. Weed and dieback management

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of 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.

4. Directional clearing

The permit holder must conduct clearing activities in a slow, progressive manner towards adjacent *native vegetation* to allow fauna to move into adjacent *native vegetation* ahead of the clearing activity.

5. Wind erosion management

The permit holder must commence unexploded ordinance search no later than two months after undertaking the authorised clearing activities to reduce the potential for wind erosion.

6. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	<ul style="list-style-type: none">(a) the species composition, structure, and density of the cleared area;(b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings;(c) the date that the area was cleared;(d) the direction of clearing;(e) the date unexploded ordinance search commenced;(f) the size of the area cleared (in hectares);(g) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 2; and(h) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 3.

7. Reporting

The permit holder must provide to the *CEO* the records required under condition 6 of this permit when requested by the *CEO*.


DEFINITIONS

In this permit, the terms in Table 2 have the meanings defined.

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
fill	means material used to increase the ground level, or to fill a depression.
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.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
weeds	means any plant – (a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS

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Ryan Mincham
MANAGER
NATIVE VEGETATION REGULATION

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

4 October 2023

SCHEDULE 1

The boundary of the area authorised to be cleared is shown in the maps below (Figures 1 and 2).

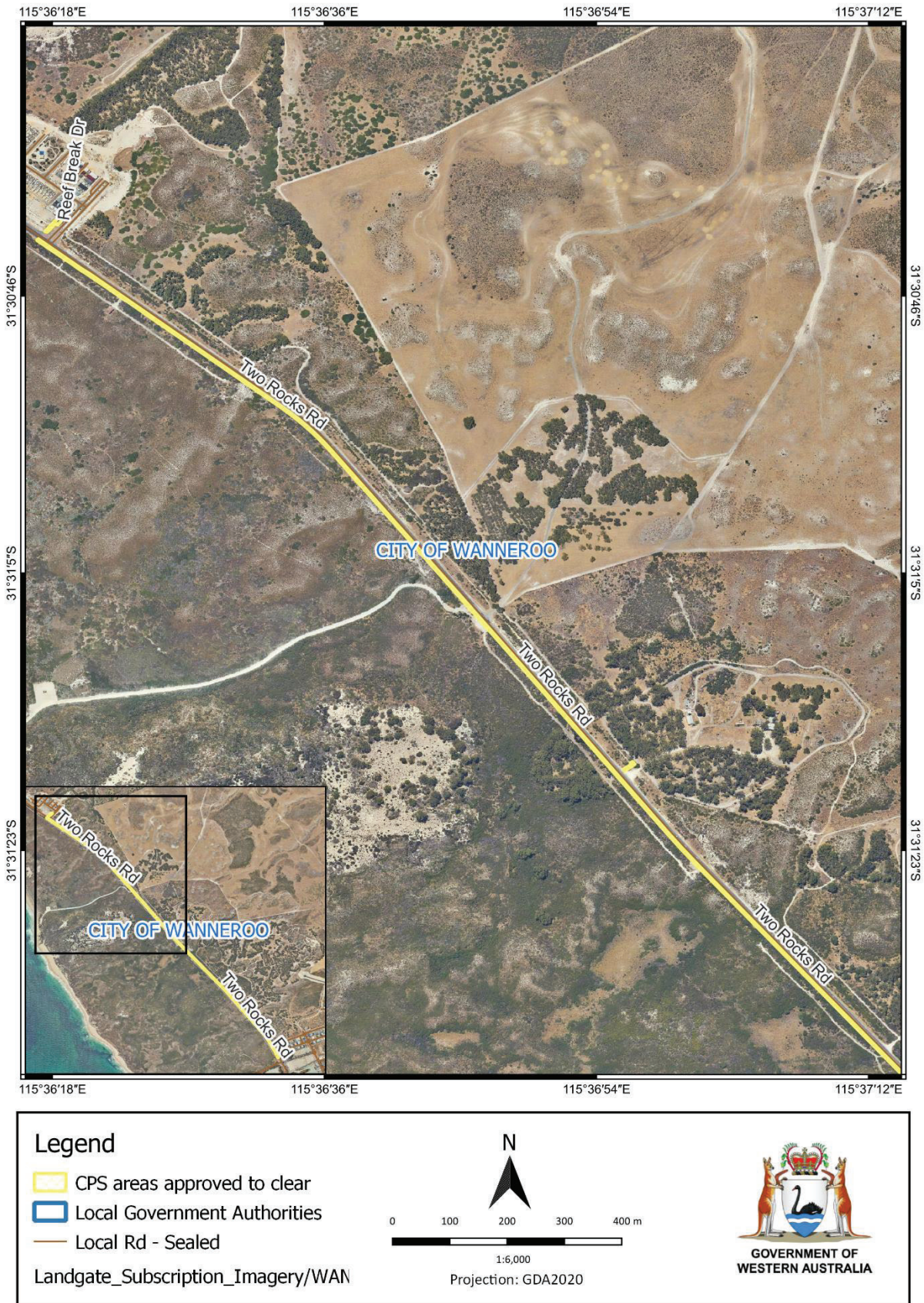


Figure 1: Map of the boundary of the area within which clearing may occur.






<p>Legend</p> <ul style="list-style-type: none"> CPS areas approved to clear Local Government Authorities Local Rd - Sealed <p>Landgate_Subscription_Imagery/WAN</p>	<p>N</p>  <p>0 100 200 300 400 m</p>  <p>1:6,000 Projection: GDA2020</p>	 <p>GOVERNMENT OF WESTERN AUSTRALIA</p>
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Figure 2: Map of the boundary of the area within which clearing may occur.



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9960/3
Permit type:	Area permit
Applicant name:	City of Wanneroo
Application received:	15 August 2023
Application area:	1.03 hectares of native vegetation
Purpose of clearing:	Facilitating an Unexploded Ordinance (UXO) remediation search and installation of streetlighting
Method of clearing:	Mechanical
Property:	Reef Break road reserve (PINs 12063086, 12063087, 12421538) Two Rocks Road reserve (PIN 12225492)
Location (LGA area/s):	City of Wanneroo
Localities (suburb/s):	Two Rocks and Yanchep

1.2. Description of clearing activities

This amendment is to increase the area of clearing by 0.13 hectares to a total of 1.03 hectares, to align with the final approved streetlight design (see Figure 1) and to facilitate an unexploded ordinance remediation search and installation of streetlighting (see Figure 2 and 3, Section 1.5).

CPS 9960/2 allowed for the clearing of 0.9 hectares within a single contiguous area approximately three (3) kilometres long and four (4) metres wide. The clearing is proposed to be extended to the north and south and two small areas have been added to the eastern verge.

The applicant advised that no clearing has been undertaken under CPS 9960/1, since the commencement of the permit (City of Wanneroo, 2023).

CPS 9960/3



Legend	N	
CPS 9960/2 approved area		GOVERNMENT OF WESTERN AUSTRALIA
CPS 9960/3 applied area	Projection: GDA2020	
Local Government Authorities		
Local Rd - Sealed		

Figure 1: Additional areas applied for in CPS 9960/3 (blue) compared to the area authorised under CPS 9960/2 (yellow)

1.3. Decision on application

Decision:	Granted
Decision date:	4 October 2023
Decision area:	1.03 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit amendment application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 21 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix A), relevant datasets (see Appendix E.1), the findings of a flora and vegetation survey by the City of Wanneroo (City of Wanneroo, 2023; see Appendix D), the clearing principles set out in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration the State Black Spot Program development and management guidelines and that the installation of street lighting is anticipated to improve road user safety.

The assessment of environmental impacts has not changed since the assessment for CPS 9960/2. The Delegated Officer determined that the proposed additional clearing of 0.13 hectares is not likely to lead to an unacceptable risk to environmental values.

The Delegated Officer determined to issue an amended permit to increase the area of clearing by 0.13 hectares to align with the final approved streetlight design.

1.5. Site maps



Figure 2: Map of the application area (north)

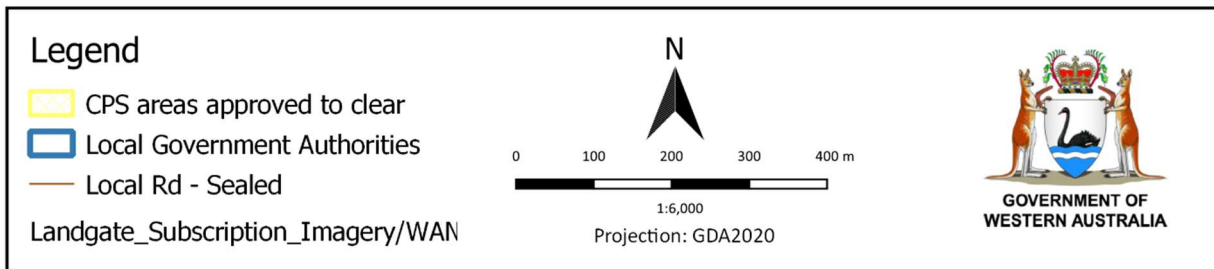
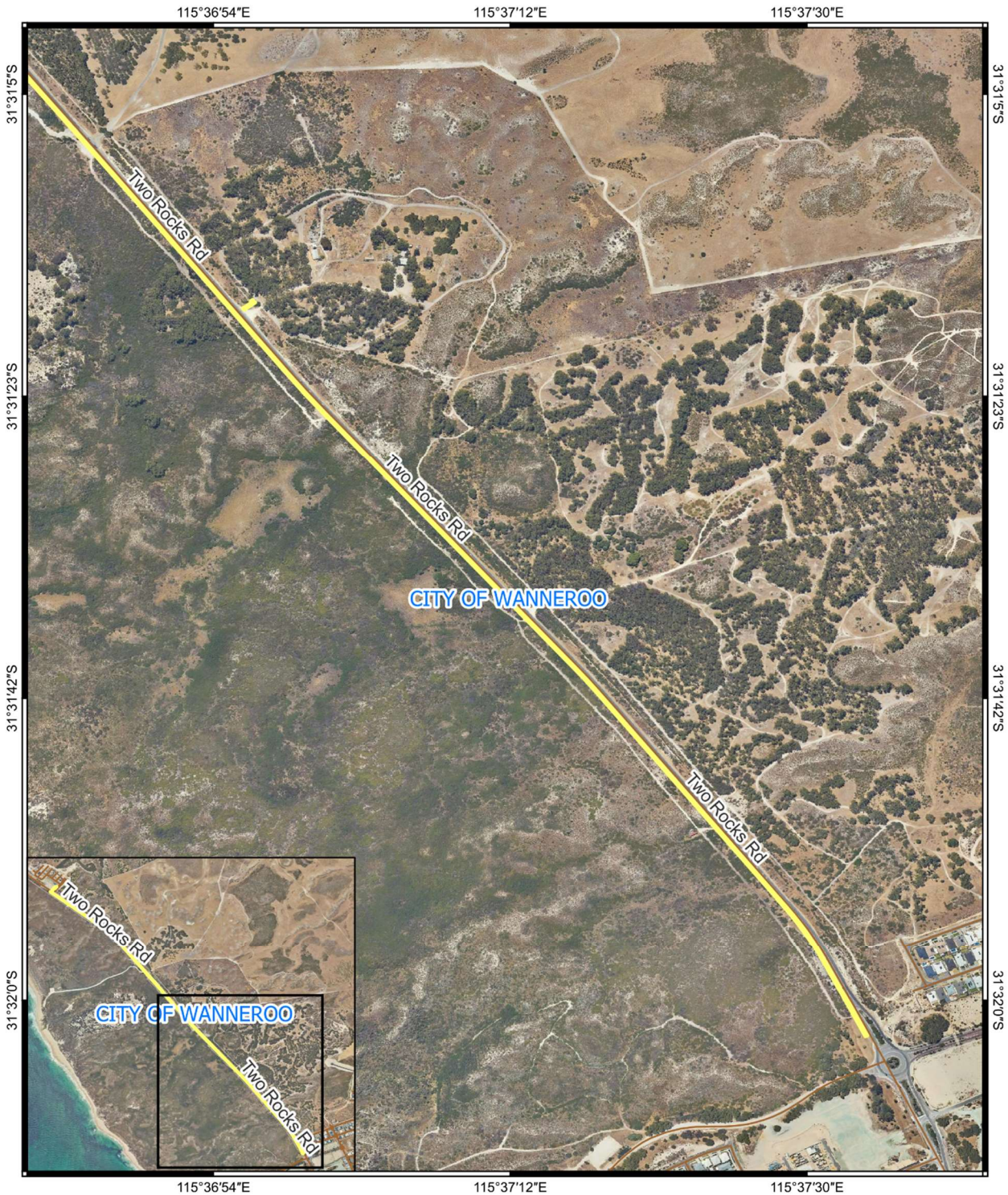


Figure 3: Map of the application area (south)

The areas cross-hatched yellow indicates the areas 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 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- 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)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

No avoidance and mitigation measures were provided as additional areas were required by Western Power to install low-voltage supply points and for maintenance of direct line of sight between the street poles (City of Wanneroo, 2023).

3.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix B) reveals that the assessment against the clearing principles has not changed from the Clearing Permit Decision Report CPS 9960/1 (DWER, 2023).

3.3. Relevant planning instruments and other matters

The assessment against planning instruments and other matters is unchanged and can be found in the Clearing Permit Decision Report CPS 9960/1 (DWER, 2023).

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

End

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	<p>The area proposed to be cleared is part of the native vegetation along the Two Rocks road reserve in the intensive land use zone of Western Australia. It is surrounded by areas zoned as urban development in the Yanchep area but has mostly intact native vegetation.</p> <p>Aerial imagery indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 70.41 per cent of the original native vegetation cover.</p>
Ecological linkage	The application area is 200 metres from the closest Perth regional ecological linkage.
Conservation areas	There are no conservation areas within the application area; the closest is Bush Forever site located 290 metres west. The closest DBCA legislated tenure is the Yanchep National Park, located 2.1 kilometres east of the application area.
Vegetation description	<p>The environmental impact assessment (City of Wanneroo, 2023) indicates the vegetation within the proposed additional clearing areas consists of both native and weed species with native <i>Acacia rostellifera</i>, <i>A. lasiocarpa</i>, <i>Acanthocarpus preissii</i> and <i>Spyridium globulosom</i> and the weed <i>*Erharta longiflora</i>, <i>*Eragrostis curvula</i> and <i>*Leontodon rhagadioloides</i> and <i>*Trifolium campestre</i>, with the northern additional area consisting of only weed species. Only three additional species were found in the 2023 survey that was not recorded previously, <i>Templetonia retusa</i>, <i>*Cyperus rotundus</i> and <i>*Leptospermum laevigatum</i>.</p> <p>The environmental impact assessment and photos are available in Appendix G.</p> <p>This is mostly consistent with the mapped vegetation complex:</p> <ul style="list-style-type: none"> Quindallup vegetation complex (system 6 ID 55) 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 <i>Melaleuca lanceolata</i> (Rottnest Teatree) – <i>Callitris preissii</i> (Rottnest Island Pine), the closed scrub of <i>Acacia rostellifera</i> (Summer-scented Wattle) and the low closed <i>Agonis flexuosa</i> (Peppermint) forest of Geographe Bay (Hodges et. al, 1980). <p>The mapped vegetation complex retains approximately 60.49 per cent of the original native vegetation cover within a 10 kilometre buffer of the application area (Government of Western Australia, 2019).</p>
Vegetation condition	<p>The environmental impact assessment (City of Wanneroo, 2023) indicates the native vegetation within the proposed clearing area is sparse throughout, with vegetation in a 'Good' to 'Completely Degraded' condition (Keighery, 1994) condition. It is estimated that approximately 30-40 per cent of the total clearing area consists of native vegetation, with the remainder consisting of cleared ground and weed species.</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix E. Representative photos are available in Appendix G.</p>
Climate and landform	<p>The climate experienced in the area is a Mediterranean climate, with dry, hot summers and cool, wet winters. The nearest weather station is Gingin Aero which is approximately 19 kilometres from Yanchep (BOM, 2023).</p> <p>The mean maximum temperature is the highest in January and February at 33.2 degrees C with the lowest in July at 18.4 degrees C. The mean minimum temperature is the highest in February at 17 degrees and lowest in July and August at 6.5 degrees C. The average annual rainfall is 639.1 mm.</p>

Characteristic	Details				
Soil description	The soil is mapped as (Schoknecht, et al., 2004):				
	Name	Description			Percentage
	Quindalup South deep sand flat Phase	Undulating landscapes with deep calcareous sands overlying limestone. Soils have dark grey-brown sand to about 50 cm and then pale brown sand. Remnants of hummocks are often present.			46.22
	Quindalup South oldest dune Phase	The oldest phase. Dunes or remnants with low relief. Calcareous sands have organic staining to about 30 cm, overlying pale brown sand with definite cementation below 1 m.			28.10
	Quindalup South second dune Phase	The second phase. A complex pattern of dunes with moderate relief. Calcareous sands have organic staining to about 20 cm, passing into pale brown sand; some cementation below 1 m.			24.61
Quindalup South shallow sand flat Phase	Undulating landscapes with shallow calcareous sands over limestone and much rock outcrop.			1.07	
Land degradation risk	The degradation risk factors mapped over the application area are detailed below:				
	Risk categories	Quindalup South deep sand flat Phase	Quindalup South oldest dune Phase	Quindalup South second dune Phase	Quindalup South shallow sand flat Phase
	Wind erosion	L2	M2	H1	M2
	Water erosion	L2	M2	L2	H1
	Salinity	L1	L1	L1	L1
	Phosphorus export	M1	M2	M1	H1
	Water logging	L1	L1	L1	L1
	Water repellence	H2	H1	H1	L1
	Subsurface Acidification	L1	L1	L1	L1
	Acid sulphate soils	L1	L1	L1	L1
	Flooding	L1	L1	L1	L1
	Floodplains	No	No	No	No
L1: <3% of map unit has a high to extreme risk, L2: 3-10% of map unit has a high to extreme risk, M1: 10-30% of map unit has a high to extreme risk, M2: 30-50% of map unit has a high to extreme risk, H1: 50-70% of map unit has a high to extreme risk, H2: >70% of map unit has a high to extreme risk					
Waterbodies	There is one important wetland in the local area, the Loch McNess system which is located 4 kilometres east of the application area with one small manmade lake 700 metres northwest of the application area.				
Hydrogeography	The application area is within the Yanchep Groundwater Area and the Perth Coastal and Gwelup underground water pollution control area public drinking water source area as proclaimed under the Metropolitan Water Supply Sewerage and Drainage Act 1909.				
Flora	<p>According to available databases, 24 conservation significant flora species have been recorded within the local area (10-kilometre buffer). None of these records occur within the application area. Nine conservation significant flora occur in the same soil and veg type.</p> <p>One additional priority flora species, <i>Styidium striatum</i> was recorded in the updated desktop assessment but has not been recorded within the same soil and vegetation type as the application area. On that basis, <i>S. striatum</i> is considered unlikely to be impacted by the proposed clearing.</p>				

Characteristic	Details
	No conservation significant flora were found in the 2023 survey (City of Wanneroo, 2023).
Ecological communities	According to available databases, five conservation significant ecological communities have been mapped within the local area (10-kilometre buffer). None of these records occur over the application area.
Fauna	<p>According to available databases, a total of 37 conservation significant fauna species have been recorded within the local area. Of these, 25 fauna species are associated with marine, estuarine or freshwater habitats that do not occur within the application area.</p> <p>Of the 12 terrestrial fauna species, the nearest records are <i>Isoodon fusciventer</i> (quenda; Priority 4) and <i>Zanda latirostris</i> (Carnaby's cockatoo; endangered) located approximately 0.02 kilometres and 0.72 kilometres from the application area, respectively. The nearest confirmed black cockatoo roost site is located approximately 1.79 kilometres from the application area. There are a total of nine black cockatoo roosting sights within a 12 kilometre buffer of the application area.</p> <p>The City's Environmental Planning Considerations Report (EPCR) (City of Wanneroo, 2023) and the City's 'Desktop Assessment Report for Native Vegetation Clearing (NVC) Application' did not identify any instances of threatened or priority fauna species within the selected footprint. However, protected fauna species were identified within a 5 kilometre radius of the selected area.</p>

A.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix E.1), and biological survey information, impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Calandrinia oraria</i>	3	Y	Y	Y	3.53	1	Y
<i>Conostylis pauciflora</i> subsp. <i>euryrhipis</i>	4	Y	Y	Y	2.93	17	Y
<i>Eucalyptus argutifolia</i>	T	Y	Y	Y	1.91	16	Y
<i>Eucalyptus foecunda</i> subsp. <i>foecunda</i>	4	Y	Y	Y	0.34	6	Y
<i>Hibbertia leptotheca</i>	3	Y	Y	Y	2.86	7	Y
<i>Lepidium pseudotasmanicum</i>	4	Y	Y	Y	0.71	3	Y
<i>Leucopogon maritimus</i>	1	Y	Y	Y	0.48	16	Y
<i>Leucopogon</i> sp. Yanchep (M. Hislop 1986)	3	Y	Y	Y	0.71	14	Y
<i>Stylidium maritimum</i>	3	Y	Y	Y	0.24	13	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

A.3. Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix E.1), and biological survey information, impacts to the following conservation significant fauna required further consideration.

Species name (Common name)	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Zanda latirostris</i> (Carnaby's cockatoo)	EN	Y	Y	0.72	467	Y
<i>Isoodon fusciventer</i> (Quenda)	P4	Y	Y	0.02	10	Y
<i>Neelaps calonotos</i> (black-striped burrowing snake)	P3	Y	Y	5.72	2	Y
<i>Synemon gratiosa</i> (Graceful sunmoth)	P4	Y	Y	1.48	176	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

A.4. Ecological community analysis table

Community name	Conservation status	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Aquatic Root Mat Community Number 1 of Caves of the Swan Coastal Plain	CR	N	N	5.70	7	N/A
Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	P3	N	N	2.73	196	Y
<i>Melaleuca huegelii</i> - <i>Melaleuca systema</i> shrublands on limestone ridges (floristic community type 26a as originally described in Gibson et al., (1994))	EN	N	Y	3.57	21	Y
Tuart (<i>Eucalyptus gomphocephala</i>) woodlands and forests of the Swan Coastal Plain	P3	N	N	2.11	94	Y
Woodlands over sedgeland in Holocene dune swales of the southern Swan Coastal Plain (original description; Gibson et al., (1994).	CR	N	N	7.19	1	N/A

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<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 environmental impact assessment identified no conservation significant flora or ecological communities. A total of 43 flora species were identified during the survey, including 17 native flora and 26 weed species (City of Wanneroo, 2023). The application area is not deemed to comprise a high area of biodiversity.</p>	Not likely to be at variance	Yes As per CPS 9960/1

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (b):</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 significant habitat for fauna.”</i></p> <p><u>Assessment:</u></p> <p>The application area includes suitable habitat for conservation significant fauna and may be used by fauna traversing the landscape.</p>	Not likely to be at variance	Yes As per CPS 9960/1
<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 area proposed to be cleared is unlikely to contain Threatened flora. The environmental impact assessment identified no Threatened flora (City of Wanneroo, 2023).</p>	Not likely to be at variance	Yes As per CPS 9960/1
<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 area proposed to be cleared does not contain species that can indicate a threatened ecological community (TEC). The environmental impact assessment did not record any TECs within the application area (City of Wanneroo, 2023). The vegetation within the application area is not likely to comprise the whole or a part of, or be necessary for the maintenance of, a TEC.</p>	Not likely to be at variance	No As per CPS 9960/1
Environmental value: significant remnant vegetation and conservation areas		
<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 extent of the mapped vegetation type is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.</p>	Not likely to be at variance	No As per CPS 9960/1
<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 is not likely to have an impact on the environmental values of nearby conservation areas. The closest Bush Forever site is located approximately 290 metres west of the application area.</p>	Not likely to be at variance	No As per CPS 9960/1
Environmental value: land and water resources		
<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>No watercourses, wetlands or vegetation is growing in association with a watercourse or wetland in the application area. The native vegetation</p>	Not likely to be at variance	No As per CPS 9960/1.

Assessment against the clearing principles	Variance level	Is further consideration required?
proposed for clearing is not growing in, or in association with, an environment associated with a watercourse or wetland.		
<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>Given the sandy soils present mapped within the application area, it is considered that the proposed clearing may cause land degradation in the form of water and wind erosion.</p>	May be at variance	Yes As per CPS 9960/1
<p><u>Principle (i):</u> <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.”</i></p> <p><u>Assessment:</u></p> <p>No water courses or wetlands are recorded within the application area. Soils will not be excavated at depth and risks to groundwater are low. The proposed clearing therefore is unlikely to impact surface or ground water quality.</p>	Not likely to be at variance	No As per CPS 9960/1
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></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>	Not likely to be at variance	No As per CPS 9960/1

Appendix C. 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.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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.

Condition	Description
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 D Photographs of the vegetation

Two Rocks Road YANCHEP/TWO ROCKS
 Black Spot Project - Lighting Upgrades
 VEGETATION ASSESSMENT 2
 FLORA LIST 22 September 2023

NATIVE SPECIES	WEED/PLANTED SPECIES
<i>Acacia lasiocarpa (opp)</i>	<i>Brassica tournefortii</i>
<i>Acacia rostelifera</i>	<i>Bromus diandrus</i>
<i>Acanthocarpus preissii</i>	<i>Cyperus rotundus</i>
<i>Callitris preissii</i>	<i>Ehrharta calycina</i>
<i>Hardenbergia comptoniana</i>	<i>Ehrharta longiflora</i>
<i>Melaleuca cardiophylla</i>	<i>Eragrostis curvula</i>
<i>Olearia axillaris</i>	<i>Erodium moschatum</i>
<i>Spyridium globulosom</i>	<i>Euphorbia peplus</i>
<i>Templetonia retusa</i>	<i>Euphorbia terracina</i>
	<i>Foeniculum vulgare</i>
	<i>Gazania linearis</i>
	<i>Lagarus ovatus</i>
	<i>Leontodon rhagadioloides</i>
	<i>Leptospermum laevigatum</i>
	<i>Oxalis pes-caprae</i>
	<i>Pelargonium capitatum</i>
	<i>Plantago lanceolata</i>
	<i>Trachyandra divaricata</i>
	<i>Trifolium campestre</i>
	<i>Brassica tournefortii</i>
	<i>Bromus diandrus</i>
	<i>Cyperus rotundus</i>

*Opp - Opportunistic sighting
 *Additional Species found

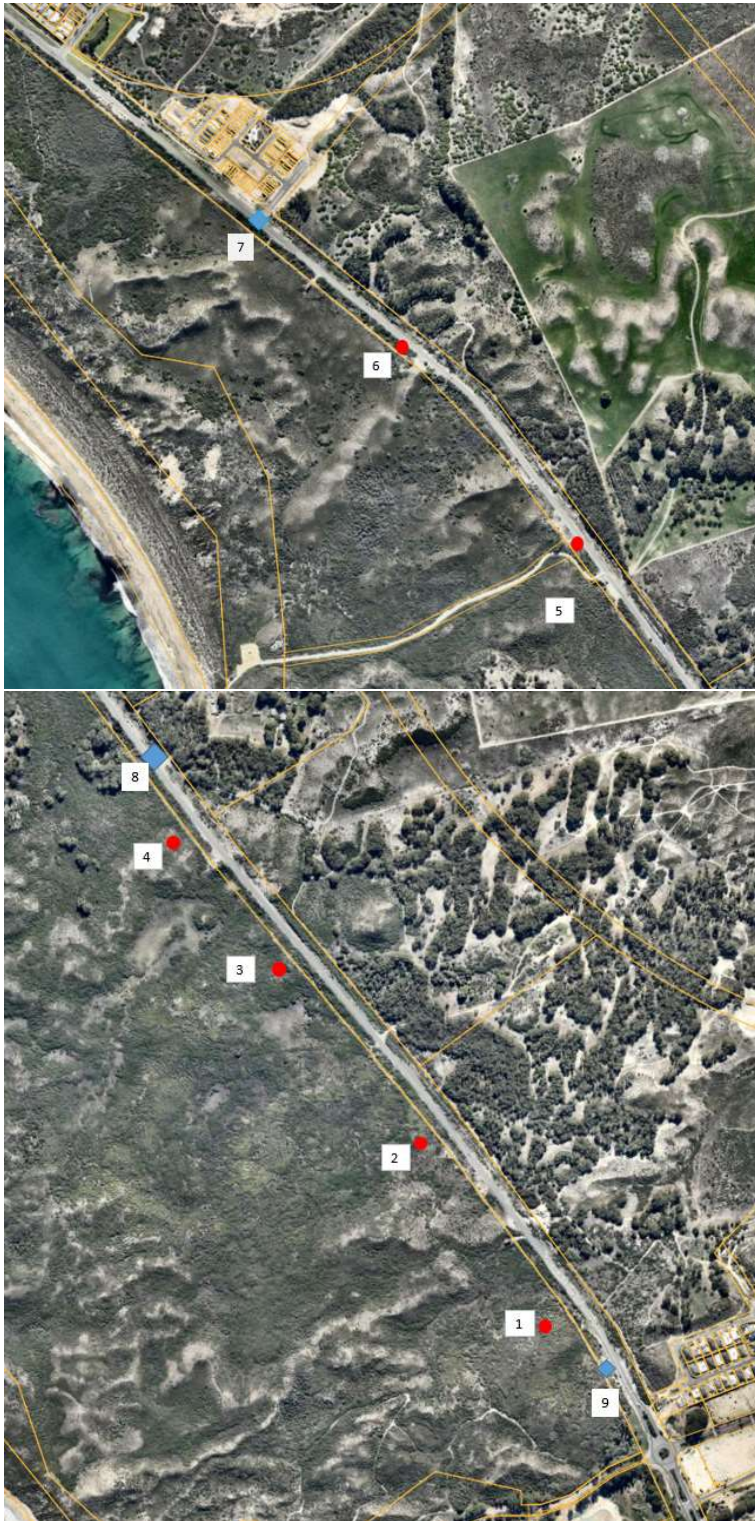


Figure 4: Location of vegetation assessment in 2022 (red points) and vegetation assessment in 2023 (blue points) along the proposed clearing area (north – top) (south – bottom) on Two Rocks Road.



Figure 5: Assessment point 7 (Northern Area) with only weed species present: **Ehrharta calycina*, **Eragrostis curvula*, **Euphorbia terracina*, **Foeniculum vulgare*, **Gazania linearis*, **Leontodon rhagadioloides*, **Plantago lanceolata*, **Trachyandra divaricata* and **Trifolium campestre*



Figure 6: Assessment point 8 (Central Area) with four native species and eight weed species present: *Acacia lasiocarpa*, *Acanthocarpus preissii*, *Spyridium globulosom* and *Templetonia retusa* with **Ehrharta longiflora*, **Eragrostis curvula*, **Erodium moschatum*, **Euphorbia peplus*, **Euphorbia terracina*, **Oxalis pes-caprae*, **Pelargonium capitatum* and **Plantago lanceolata*



Figure 7: Assessment point 9 (Southern Area) with eight native species and nine weed species: *Acacia lasiocarpa*, *Acacia rostellifera*, *Acanthocarpus preissii*, *Callitris preissii*, *Hardenbergia comptoniana*, *Melaleuca cardiophylla*, *Olearia axillaris*, *Spyridium globulosum* with **Brassica tournefortii*, **Bromus diandrus*, **Cyperus rotundus*, **Eragrostis curvula*, **Euphorbia terracina*, **Lagarus ovatus*, **Leontodon rhagadioloides*, **Leptospermum laevigatum* and **Plantago lanceolata*.

Appendix E. Sources of information

E.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- 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)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas

- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

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)

E.2. References

- Bureau of Meteorology (BOM) (2023) Climate statistics for Australian locations, Summary statistics for GinGin Aero. Available from: http://www.bom.gov.au/climate/averages/tables/cw_009178.shtml, accessed 8 September 2023.
- City of Wanneroo (2023) *Clearing permit amendment application CPS 9960/3*, received 15 August 2023 (DWER Ref: DWERDT821322).
- Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.
- Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf.
- Department of Primary Industries and Regional Development (DPIRD) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development*. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (accessed 8 September 2023).
- Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. Available from: https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF.
- Department of Water and Environmental Regulation (DWER) (2023). CPS 9960/1 – Permit with Plans and Decision Report. Joondalup. Available from: <https://ftp.dwer.wa.gov.au/permit/9960/Permit/CPS%209960-1%20-%20Permit%20with%20Plans%20and%20Decision%20Report.pdf>
- Government of Western Australia (2019) *2018 South West Vegetation Complex Statistics. Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>
- Government of Western Australia. (2019) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) *Atlas of Australian Soils*, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.
- 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.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 8 September 2023)