



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 10434/1
File Number: DWERVT14124
Duration of Permit: From 1 May 2024 to 1 May 2026

PERMIT HOLDER

City of Wanneroo

LAND ON WHICH CLEARING IS TO BE DONE

Lot 13321 on Deposited Plan 21931, Two Rocks

AUTHORISED ACTIVITY

The permit holder must not clear more than 0.012 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. 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.

2. 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.

3. Directional clearing

The permit holder must conduct clearing activities in a slow, progressive manner and in one direction, from east to west towards adjacent native vegetation, to allow fauna to move into adjacent native vegetation ahead of the clearing activity.

4. Wind erosion management

The permit holder must commence construction no later than two months after undertaking clearing authorised under this permit, to reduce the risk of soil erosion by minimising the exposure of bare soils prior to construction.

5. 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 size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 1; and (f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 2. (g) Actions taken in accordance with condition 3 and condition 4.

6. Reporting

The permit holder must provide to the *CEO* the records required under condition 3 of this permit when requested by the *CEO*.

DEFINITIONS

In this permit, the terms in Table 2 below have their 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 – <ul style="list-style-type: none"> (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



Ray Carvalho
MANAGER
NATIVE VEGETATION REGULATION

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

5 April 2024

SCHEDULE 1

The boundary of the area authorised to be cleared is shown in the map below (Figure 1.)



Figure 1: Boundary of the area within which clearing may occur (cross-hatched yellow).



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10434/1
Permit type:	Area permit
Applicant name:	City of Wanneroo
Application received:	30 November 2023
Application area:	0.012 hectares of native vegetation
Purpose of clearing:	Upgrade and construction of a toilet block
Method of clearing:	Mechanical
Property:	Lot 13321 on Deposited Plan 21931
Location (LGA area/s):	City of Wanneroo
Localities (suburb/s):	Two Rocks

1.2. Description of clearing activities

The application is to upgrade existing amenities at a beach carpark in Two Rocks (see Figure 1, Section 1.5). The upgrade is to include unisex accessible toilets, an Australian Council for Rehabilitation of Disabled (ACROD) parking space within the existing carpark and an accessible pathway from the parking space to the toilet block. The area proposed to be cleared includes 0.012 hectares of native vegetation adjacent to an unsealed access road and footpath comprising coastal native vegetation.

1.3. Decision on application

Decision:	Granted
Decision date:	5 April 2024
Decision area:	0.012 hectares of native vegetation as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit 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 C), relevant datasets (see Appendix H.1), the applicants site inspection photographs (see Appendix F), the applicants measures to avoid and minimise the clearing of native vegetation, the clearing principles set out in Schedule 5 of the EP Act (see Appendix D), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The Delegated Officer also took into consideration that the clearing is for public benefit to improve the existing amenities to create an inclusive and accessible urban environment within the City's public spaces.

The assessment identified that the proposed clearing will result in:

- the loss of 0.012 hectares of native vegetation within Bush Forever Site 397
- the potential introduction and spread of weeds and dieback into Bush Forever Site 397
- a minor risk of wind erosion should cleared areas remain bare and exposed for prolonged periods post clearing
- potential direct impacts to any fauna that may be utilising the application area at the time of clearing.

The Delegated Officer considered the small extent of clearing proposed within the much larger Bush Forever site (which represents the loss of 0.004 per cent of the vegetation within the Bush Forever site), presence of weeds within the application area, proximity to existing infrastructure, and that the proposed clearing will not directly impact on the broader linkage and fauna habitat values provided by the Bush Forever Site. Based on those considerations, the Delegated Officer determined that the proposed clearing within the Bush Forever site did not constitute a significant residual impact and therefore does not require an environmental offset.

There is however a risk of the proposed clearing spreading weeds further into the Bush Forever site, and this potential impact requires appropriate management.

The Delegated Officer determined that the impacts of the proposed clearing could be minimised and managed to be environmentally acceptable. The Delegated Officer therefore decided to grant a clearing permit subject to conditions to:

- undertake measures to avoid, minimise and reduce the impacts and extent of clearing
- undertake construction works within two months of clearing to limit the prolonged exposure of bare sandy soils
- undertake clearing in a slow progressive manner from east to west to allow fauna to move into adjacent native vegetation ahead of the clearing
- undertake management measures to minimise the risk of the introduction and spread of weeds and dieback.

1.5. Site map



Legend

- CPS areas approved to clear
- Land Tenure (LGATE_226) - SLIP
- Local Government Authorities
- Minor Roads

0 5 10 15 20 m
1:267.124557
Projection: GDA2020

GOVERNMENT OF WESTERN AUSTRALIA

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 1.4), 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)

Relevant policies considered during the assessment include:

- State Planning Policy 2.8: Bushland Policy for the Perth Metropolitan Region (2010)

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

Evidence was submitted by the applicant demonstrating that the proposed clearing is only to the extent necessary. The applicant advised that the new infrastructure incorporates the existing building footprint to reduce the overall clearing required. Further, the laydown and storage of materials will occupy an existing cleared area to avoid further clearing. The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix C) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix D **Error! Reference source not found.**) identified that the impacts of the proposed clearing present a risk to biological values (flora and fauna), and conservation areas (Bush Forever). The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values (Fauna) - Clearing Principles (a) and (b)

Assessment

According to available datasets, 20 conservation significant fauna species have been recorded within the local area (10-kilometre radius), including seven avian species, five invertebrate species, three reptiles and six mammals. Of these, one mammal and one invertebrate have the potential to occur within the application area, based on their habitat requirements, as listed below:

- quenda (*Isoodon fusciventer*) Priority 4 – closest record 0.760 kilometres from the application area
- graceful sun moth (*Synemon gratiosa*) Priority 4 – closest record 3.59 kilometres from the application area.

The fauna analysis determined that the application area is unlikely to comprise of suitable habitat for the remaining fauna species recorded in the local area, including black cockatoos.

Quenda (*Isoodon fusciventer*)

The quenda is a small ground dwelling marsupial, endemic to southwestern Australia and is listed as a priority 4 species by the Department of Biodiversity, Conservation and Attractions (DBCA). Quenda require a dense understorey for cover and are often found digging in leaf litter for invertebrates, earthworms, beetles and plant material, generally inhabiting dense understorey vegetation of forests, woodlands, shrubland and heathland

(DBCA, 2017). Within the local area there are nine mapped quenda records, with the nearest mapped record 760 metres from the application area.

The application area contains coastal shrubland (City of Wanneroo, 2023c; City of Wanneroo, 2023d), and provides suitable habitat for quenda. However, given that the small application area is bordered to the south and east by existing infrastructure, and noting the extent of extensive areas of suitable quenda habitat adjacent, which includes around 350 hectares of coastal shrubland, the 0.012 hectare application area is not likely to comprise significant habitat for quenda.

Graceful sun moth (*Synemon gratiosa*)

The graceful sun moth is a medium sized diurnal flying sun moth and is listed as a priority 4 species by DBCA. The graceful sun moth is generally associated with two habitat types: coastal heathland on the Quindalup dunes and *Banksia* woodland. Although the species is likely to occur in the Quindalup dunes system it is restricted to the secondary dune system where the host plant *Lomandra maritima* is abundant (DCCEEW, 2024). Given the application area is not located within the secondary dune system and the applicants site visit did not identify the host flora species, it is unlikely for the application area to comprise significant habitat for the graceful sun moth, and the proposed clearing is unlikely to impact on this species.

Conclusion

Based on the above assessment, the fauna habitat within the application area is not likely to comprise significant habitat for conservation listed fauna. However, the proposed clearing may impact on any fauna species utilising the application area at the time of clearing, and this risk requires management.

Conditions

The applicant will be required to (as a condition of the clearing permit) undertake clearing in a slow, progressive manner and from east to west, to allow fauna to move into adjacent native vegetation ahead of the clearing activity.

3.2.2. Biological values – Biodiversity (Priority Flora) - Clearing Principle (a)

Assessment

The application area is located within the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) region and mapped as the Quindalup Complex. This complex is described as a coastal dune complex consisting mainly of two alliances: the strand and foredune alliance, and the mobile and stable dune alliance (Government of Western Australia, 2019). The images provided by the applicant indicate that the application area comprises closed coastal shrubland on dunes, with weeds on the boundary of the area adjacent to existing infrastructure (City of Wanneroo, 2023c; City of Wanneroo, 2023d). The condition of the vegetation within the application area is considered 'very good' (Keighery, 1994).

A review of available databases indicates that 21 conservation significant flora species have been recorded within the local area (10-kilometre radius). Based on broadscale soil (DPIRD, 2019) and vegetation mapping (Heddl et al., 1980), the following three species were considered to have the potential to occur within the application area:

- *Leucopogon maritimus* – Priority 1 (P1) – recorded 0.29 kilometres from the application area. This species is known from 18 records over a range of around 45 kilometres
- *Calandrinia oraria* – P3 – recorded 1.48 kilometres from the application area. This species is known from 15 records over a range of around 320 kilometres
- *Eucalyptus foecunda subsp. foecunda* – P4 – recorded 1.17 kilometres from the application area. This species is known from 79 records over a range of around 450 kilometres.

Eucalyptus foecunda subsp. foecunda typically occurs on limestone ridges and the application area does not provide suitable habitat for this species.

Calandrinia oraria and *Leucopogon maritimus* typically occur on coastal dunes and based on the City's site inspection, suitable habitat for these species occurs within the application area. The City's site inspection identified six native species, none of which include the above species (City of Wanneroo, 2023c; City of Wanneroo, 2023d). While suitable habitat occurs for these species, given the very small area proposed for clearing, and the range and number of known records of these species, the proposed clearing is not likely to significantly impact on the regional extent or impact on the conservation status of these species.

Conclusion

Based on the above assessment, the proposed clearing is unlikely to significantly impact on priority flora.

3.2.3. Environmental value: Conservation Areas - Clearing Principle (h)

Assessment

The application area is within Bush Forever Site 397 (Coastal Strip from Wilbinga to Mindarie). The Bush Forever program provides a policy and implementation framework which aims to ensure bushland protection and management issues in the Perth Metropolitan region are appropriately addressed (Government of WA, 2022).

State Planning Policy 2.8 Bushland Policy for the Perth Metropolitan Region sets out that proposals and decision making in respect of Bush Forever sites should support a general presumption against the clearing of regionally significant bushland, except where a proposal or decision is justified with regard to wider social or recreational needs (clause 5.1.2.1(i)(e)). In this instance, the Department of Planning, Lands and Heritage (DPLH) has advised that the proposed works are justified with regard to the wider social needs.

The Policy also sets out that unavoidable adverse impacts on regionally significant bushland within a Bush Forever site should be offset at a ratio of at least 1:1 in habitat hectares.

In this instance, the impact to Bush Forever Site 397 is limited to the loss of 0.012 hectares of native vegetation, within an area adjacent to the existing public toilet, car park and access track. This small area has been subject to weed incursion and occurs on the border of an extensive remnant of the Bush Forever Site given the existing infrastructure. The proposed clearing will therefore not have the effect of isolating any remnant native vegetation, or directly impacting on the broader linkage values provided. Within the local area, Bush Forever site 397 consists of a combined area of 313.99 hectares, the majority of which appears to be high quality vegetation that has been subject to minimal disturbance. The proposed clearing represents the loss of 0.004 per cent of the vegetation within the mapped Bush Forever site.

Noting the small extent of clearing proposed relatively to the larger Bush Forever Site, evidence of weeds within the application area, proximity to existing infrastructure, and that it will not directly impact on the broader linkage and fauna habitat values provided by Bush Forever Site 397, the proposed clearing is unlikely to have a significant environmental impact on Bush Forever Site 397. DWER also notes that the proposed works are consistent with the intent of the reserve and provide a social benefit. Given the above, it is considered that the proposed clearing does not constitute a significant residual impact and an offset is not required for impacts to the Bush Forever Site in this instance.

The proposed clearing may however introduce and spread weeds and dieback further into the Bush Forever Site, which represents a risk to the broader biodiversity of this conservation area. The applicant will be required (as a condition of the clearing permit) to undertake weed and dieback management measures to minimise this risk.

Conclusion

For the reasons set out above, the loss of 0.012 hectares of native vegetation within Bush Forever Site 397 does not represent a significant residual impact that requires an offset in this instance. However, it is considered that the threat from the potential introduction and spread of weeds and dieback exists and this potential impact requires management.

Conditions

To address the risk of spreading weeds and dieback, the applicant will be required (as a condition of the clearing permit) to undertake weed and dieback management measures to mitigate the risk of further spread into adjacent native vegetation within Bush Forever Site 397.

3.3. Relevant planning instruments and other matters

As mentioned above in section 3.2.3, the application area is located within Bush Forever Site 397 - Coastal Strip from Wilbinga to Mindarie. DPLH provided comment on the application and advised that under SPP 2.8, proposals should seek to support a general presumption against the clearing of regionally significant bushland, except where a proposal or decision is justified with regard to wider social or recreational needs (DPLH, 2024). In this instance DPLH has advised that the proposal is justified for wider social needs and therefore can be considered consistent with the SPP 2.8.

DPLH recommended the following to ensure the integrity of Bush Forever Site 397 is not compromised, in accordance with SPP 2.8 section 5.1.1 (ii) and 5.1.2.1 (e), Land Use Planning Policy (DPLH, 2024):

- No construction materials, vegetation, earth spoil, drainage, or other debris to be disposed of within Bush Forever Site 397
- An offset package is prepared and approved by DWER prior to the clearing of any native vegetation, in accordance with the WA Environmental Offsets Policy (2011) and Appendix 4 of SPP 2.8. It is recommended that there is an environmental gain for any clearing undertaken, i.e. revegetation of at least 0.012 hectares onsite at Bush Forever Site 397.

Noting the reasons outlined above under section 3.2.3, the very small impact to native vegetation within Bush Forever Site 397 proposed is not considered to constitute a significant residual impact that requires an offset in this instance. It is also noted that mitigation opportunities within the broader Bush Forever Site are limited noting that it is extensively vegetated coastal dune site.

The application area is not within a mapped Aboriginal Site of Significance. 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.

End

Appendix C. Site characteristics

C.1. Site characteristics

Characteristic	Details
Local context	<p>The application area is part of an expansive tract of native vegetation in the intensive land use zone of Western Australia. It is surrounded by a coastal dune system, aside from some minor infrastructure (car park and access road) which it sits adjacent to. The application area is within Bush Forever Site 397.</p> <p>Aerial imagery indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 72 per cent of the original native vegetation cover.</p>
Ecological linkage	The application area is within Bush Forever Site 397 and associated with a Perth Regional Ecological Linkage, which runs north to south along the coast.
Conservation areas	Within the local area there are there are six conservation areas, including Bush Forever Site 397 (within which the application area occurs), Yanchep National Park located 3.8 kilometres from the application area and Gnangara-Moore River State Forest located 5.1 kilometres away.
Vegetation description	<p>Photographs supplied by the applicant indicate the vegetation within the application area consists of coastal dune shrubland with weed species on the boundary of the application area adjacent to the existing infrastructure (City of Wanneroo, 2023c; City of Wanneroo, 2023d).</p> <p>The site inspection identified 6 native flora species within the application area, being, <i>Acacia cyclops</i>, <i>Acacia rostellifera</i>, <i>Carpobrotus</i> sp., <i>Olearia axillaris</i>, <i>Rhagodia baccata</i> and <i>Scaevola crassifolia</i>. The site inspection identified 5 weed species (City of Wanneroo, 2023c; City of Wanneroo, 2023d). Representative photographs are available in Appendix F.</p> <p>This is largely consistent with the mapped vegetation type(s):</p> <ul style="list-style-type: none"> Quindalup Complex (55), 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 <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. <p>The mapped vegetation type retains approximately 60.49 per cent of its original extent (Government of Western Australia, 2019).</p>
Vegetation condition	<p>Photographs supplied by the applicant (City of Wanneroo, 2023c; City of Wanneroo, 2023d) indicate the vegetation within the application area is in very good condition (Keighery, 1994), described as:</p> <ul style="list-style-type: none"> 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. <p>The full Keighery (1994) condition rating scale is provided in Appendix E. Representative photos are available in Appendix F.</p>
Climate and landform	<p>The Two Rocks region is located within the Perth metropolitan area consisting of a Mediterranean climate of hot dry summers and mild winters. The average annual rainfall is 520 millimetres.</p> <p>The application area is located in a coastal dune system sloping from five to 20 metres to the south and gradually sloping west to east.</p>
Soil description	The soil is mapped as Quindalup South youngest dune phase (211Qu) described as the youngest phase, irregular dunes with slopes up to 20%, loose pale brown calcareous sand with no soil profile developed (DPIRD, 2019).

Characteristic	Details
Land degradation risk	The application area is mapped to have a high risk of wind erosion and water repellence, a medium risk of water erosion and phosphorus export and a low risk of waterlogging, subsurface acidification, salinity, and flooding.
Waterbodies	The desktop assessment and aerial imagery indicated that within the local area there are five conservation category wetlands, with the closest being located 5.6 kilometres from the application area and no mapped major watercourses. Within the application area there are no mapped watercourses or wetlands.
Hydrogeography	The application area is mapped within the Yanchep groundwater area and is located approximately 900 metres from the Perth coastal and Gwelup underground water pollution control area. Groundwater salinity is mapped at 500-1000 TDS mg/L.
Flora	21 species of conservation listed flora have been mapped within the local area. Of these, one species is listed as threatened, two are listed as Priority 1 (P1), three are P2, 10 are P3 and five are P4 species. The closest record of conservation listed flora is around 0.29 kilometres from the application area.
Ecological communities	Within the local area there are five mapped threatened ecological communities, with the closest located three kilometres from the application area.
Fauna	20 conservation listed fauna species are mapped within the local area, consisting of two critically endangered species, two endangered species, two vulnerable, one priority 1 (P1), one P2, two P3, four P4, four migratory species, one conservation dependent aquatic species and one other specially protected species. Of the mapped records the closest record of any conservation listed fauna was recorded 0.76 kilometres from the application area.

C.2. Flora analysis table

Table 1. Conservation listed flora species that have the potential to occur within the application area based on broad scale mapped soil and vegetation types.

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)
<i>Leucopogon maritimus</i>	Priority 1	Y	Y	Y	0.29	18
<i>Eucalyptus foecunda</i> subsp. <i>foecunda</i>	Priority 4	N	Y	Y	1.17	79
<i>Calandrinia oraria</i>	Priority 3	Y	Y	Y	1.48	15

C.3. Land degradation risk table

Risk categories	Land Unit 1
Wind erosion	H2: >70% of map unit has a high (to extreme) risk
Water erosion	M2: 30-50% of the map unit has a high susceptibility
Water logging	L2: 3-10% of the map unit has a moderate to very high to risk
Water Repellence	H2: >70% of map unit has a high (to extreme) risk
Subsurface Acidification	L1: <3% of the map unit has a moderate to high hazard
Phosphorus export risk	M2: 30-50% of the map unit has a high susceptibility
Flood risk	L1: <3% of the map unit has a moderate to high hazard
Salinity	L1: <3% of the map unit has a moderate to high hazard

Appendix D. 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> <i>“Native vegetation should not be cleared if it comprises a high level of biodiversity.”</i></p> <p><u>Assessment:</u></p> <p>The vegetation within the application area is largely consistent with the Quindalup Vegetation Complex. Noting that the application area is unlikely to comprise a threatened or priority ecological community, or significant habitat for conservation listed flora or fauna, it is not likely to comprise a high level of biodiversity.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<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 contains suitable habitat for quenda (<i>Isoodon fusciventer</i>); however, this habitat is not likely to be significant given its small size, that it is adjacent to existing infrastructure, and is bordered by extensive coastal vegetation that provides higher quality quenda habitat.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<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 application area is not likely to provide suitable habitat for the threatened flora species recorded in the local area.</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>There are no threatened ecological communities (TECs) mapped over the application area, and based on the City of Wanneroo’s site inspection photographs, the application area is not likely to be representative of a TEC.</p>	Not likely to be at variance	No
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 native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001), noting the remaining vegetation extents of the mapped vegetation complex and local area are greater than 60 per cent.</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>The application area is with a Bush Forever Site 397 (Coastal strip from Wilbinga to Mindarie). The proposed clearing will impact on 0.012 hectares of native vegetation within this Bush Forever Site.</p>	At variance	Yes <i>Refer to Section 3.2.1, above.</i>

Assessment against the clearing principles	Variance level	Is further consideration required?
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>There are no watercourses or wetlands recorded within the application area, and the proposed clearing is unlikely to impact on riparian vegetation or the hydrology of the local area.</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. Noting the purpose of the clearing will not result in bare ground, and the small size of the application area which is bordered by extensive coastal vegetation west and existing infrastructure east, the proposed clearing is not likely to cause appreciable land degradation. Despite this, localised wind erosion may occur, and the applicant will be required to undertake construction works within two months of clearing to prevent the prolonged exposure of bare sandy soils to limit the risk of wind erosion.</p>	Not likely to be at variance	No
<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>Given no watercourses or wetlands are recorded within or close to the application area, and small size of the application area, the proposed clearing is unlikely to impact on surface or groundwater quality.</p>	Not likely to be at variance	No
<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>Given no wetlands are recorded within 5.5 kilometres of the application area, there are no watercourses intersecting the application area, the highly permeable sandy soils, and the elevation in relation to the ocean, the proposed clearing is unlikely to contribute to cause or exacerbate the intensity of flooding.</p>	Not likely to be at variance	No

Appendix E. 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.

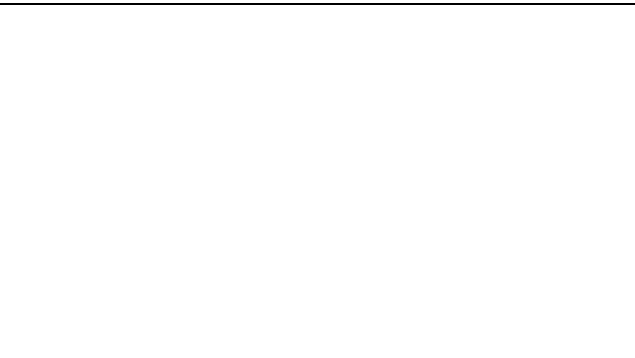
Measuring vegetation condition for the Southwest and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.

Condition	Description
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 F. Photographs of the vegetation within the application are (City of Wanneroo, 2023c)





Appendix H. Sources of information

H.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)
- 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

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)

H.2. References

City of Wanneroo (2023) *Clearing permit application CPS 10434/1*, received 30 November 2023 (DWER Ref: DWERDT891708).

City of Wanneroo (2023a) Environmental Planning Consideration report (EPC) *Supporting information for clearing permit application CPS 10434/1*, received 30 November 2023 (DWER Ref: DWERDT 891701).

City of Wanneroo (2023b) Desktop assessment Report of Native Vegetation Clearing Application *Supporting information for clearing permit application CPS 10434/1*, received 30 November 2023 (DWER Ref: DWERDT 891702).

- City of Wanneroo (2023c) *Supporting information (Photographs) for clearing permit application CPS 10434/1*, received 30 November 2023 (DWER Ref: DWERDT 891713).
- City of Wanneroo (2023d) *Proposed installation of The Spot Toilet Renewal, Two Rocks Supporting information for clearing permit application CPS 10434/1*, received 30 November 2023 (DWER Ref: DWERDT 891705).
- Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2017). *Fauna notes – Living with Quenda*. Available from <http://www.dbca.wa.gov.au/>
- Department of the Climate Change, Energy, the Environment and Water (DCCEEW) (2024). *Synemon gratiosa* in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: <https://www.environment.gov.au/sprat>. Accessed 13 February 2024
- 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 Planning, Lands and Heritage (DPLH) (2024). *Bush Forever advice for clearing permit application CPS 10434/1*, received 23 January 2024 (DWER Ref: DWERDT895149).
- Department of Planning Lands and Heritage (DPLH) (2000). *Bush Forever Volume 1: Policies, Principles and Processes*. Perth. Available from: [Bush forever Volume 1 policies, principles and processes \(www.wa.gov.au\)](http://www.wa.gov.au)
- 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 30 June 2020).
- 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 (2022), *Bush Forever Policy. Current as of 18 October 2022*. Department of Planning, Lands and Heritage: [Bush forever policy \(www.wa.gov.au\)](http://www.wa.gov.au)
- 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.
- Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 5 February 2024)