



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

### PERMIT DETAILS

Area Permit Number: CPS 9566/1  
File Number: DWERVT9562  
Duration of Permit: From 12 May 2022 to 12 May 2024

### PERMIT HOLDER

City of Wanneroo

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 15451 on Deposited Plan 40341, Yanchep  
Lot 15450 on Deposited Plan 40341, Quinns Rocks

### AUTHORISED ACTIVITY

The permit holder must not clear more than 0.02 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 and 2 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. 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 | <ol style="list-style-type: none"><li>(a) the species composition, structure, and density of the cleared area;</li><li>(b) 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;</li><li>(c) the date that the area was cleared;</li><li>(d) the size of the area cleared (in hectares); and</li><li>(e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 1; and</li><li>(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.</li></ol> |

## 4. 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 have the meanings defined.

**Table 2: Definitions**

| <b>Term</b>       | <b>Definition</b>  |
|-------------------|--|
| 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 –<br>(a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or<br>(b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or<br>(c) not indigenous to the area concerned. |

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## END OF CONDITIONS



**Mathew Gannaway**  
**A/SENIOR MANAGER**  
**NATIVE VEGETATION REGULATION**

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

19 April 2022

# SCHEDULE 1

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

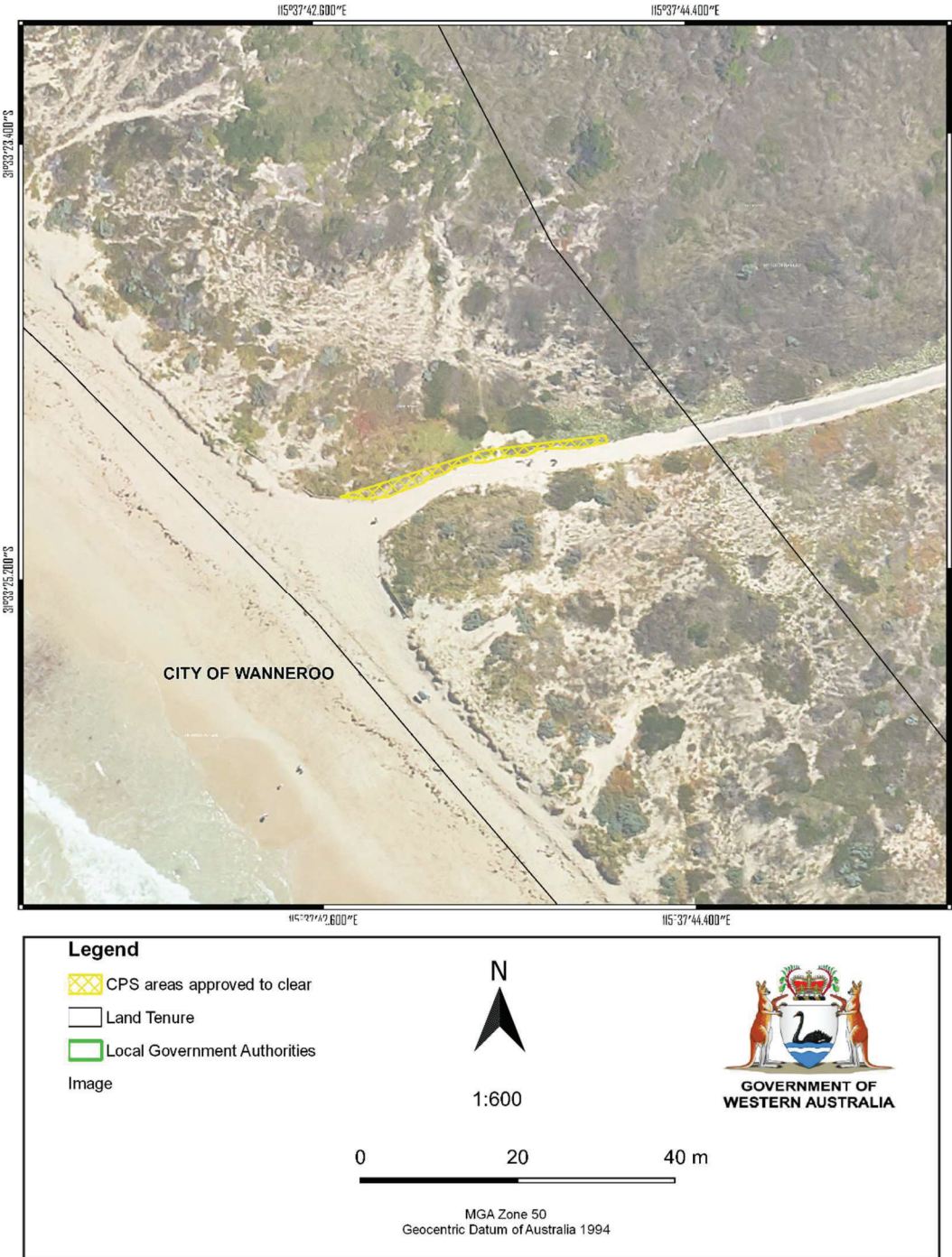
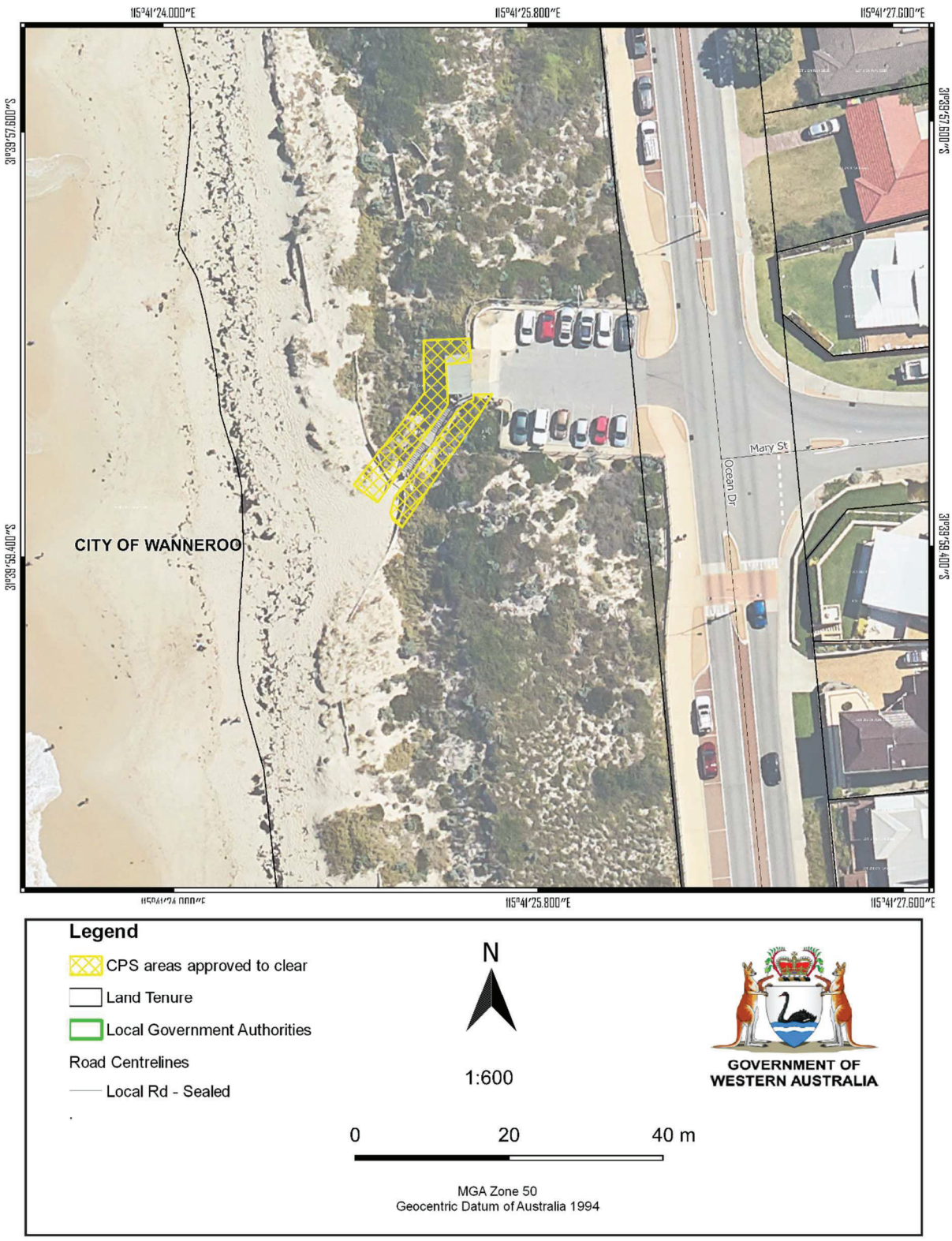


Figure 1: Map of the boundary of the area within which clearing may occur (A)





**Figure 2: Map of the boundary of the area within which clearing may occur (B)**



# Clearing Permit Decision Report

## 1 Application details and outcome

### 1.1. Permit application details

|                               |   |
|-------------------------------|---|
| <b>Permit number:</b>         | CPS 9566/1  |
| <b>Permit type:</b>           | Area permit   |
| <b>Applicant name:</b>        | City of Wanneroo  |
| <b>Application received:</b>  | 12 January 2022   |
| <b>Application area:</b>      | 0.02 hectares of native vegetation  |
| <b>Purpose of clearing:</b>   | Renewal of one beach access and for the widening of a secondary beach access to allow for on-going machinery access for re-nourishment activities |
| <b>Method of clearing:</b>    | Mechanical  |
| <b>Property:</b>              | Lot 15451 on Deposited Plan 40341<br>Lot 15450 on Deposited Plan 40341  |
| <b>Location (LGA area/s):</b> | City of Wanneroo  |
| <b>Localities (suburb/s):</b> | Yanchep<br>Quinns Rocks   |

### 1.2. Description of clearing activities

The vegetation proposed to be cleared is distributed across two separate areas (see Figures 1 and 2, Section 1.5).

The proposed clearing of 0.004 hectares of native vegetation within Area A (Figure 1) will facilitate the widening along defined sections of the northern side of the existing beach access way (BAW) to allow for ongoing future maintenance and machinery access to Yanchep beaches south of the Lagoon area when required (including for beach renourishment activities in the event of unsafe beaches post storm events).

The proposed clearing of 0.0142 hectares of native vegetation within Area B (Figure 2) is for asset renewal purposes and will therefore facilitate the removal of existing BAW structure and enable the installation of new structure to enable ongoing pedestrian access to Quinns Beach.

### 1.3. Decision on application

|                       |  |
|-----------------------|--|
| <b>Decision:</b>      | Granted  |
| <b>Decision date:</b> | 19 April 2022  |
| <b>Decision area:</b> | 0.02 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 14 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.2), the findings of a site inspection and photographs provided by the applicant (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 assessment identified that the proposed clearing will result in:

- Loss of 0.02 hectares of native vegetation with Bush Forever area 397; and
- the potential introduction and spread of weeds and dieback into adjacent vegetation (Bush Forever area 397), which could impact on the quality of the adjacent vegetation and its habitat values.

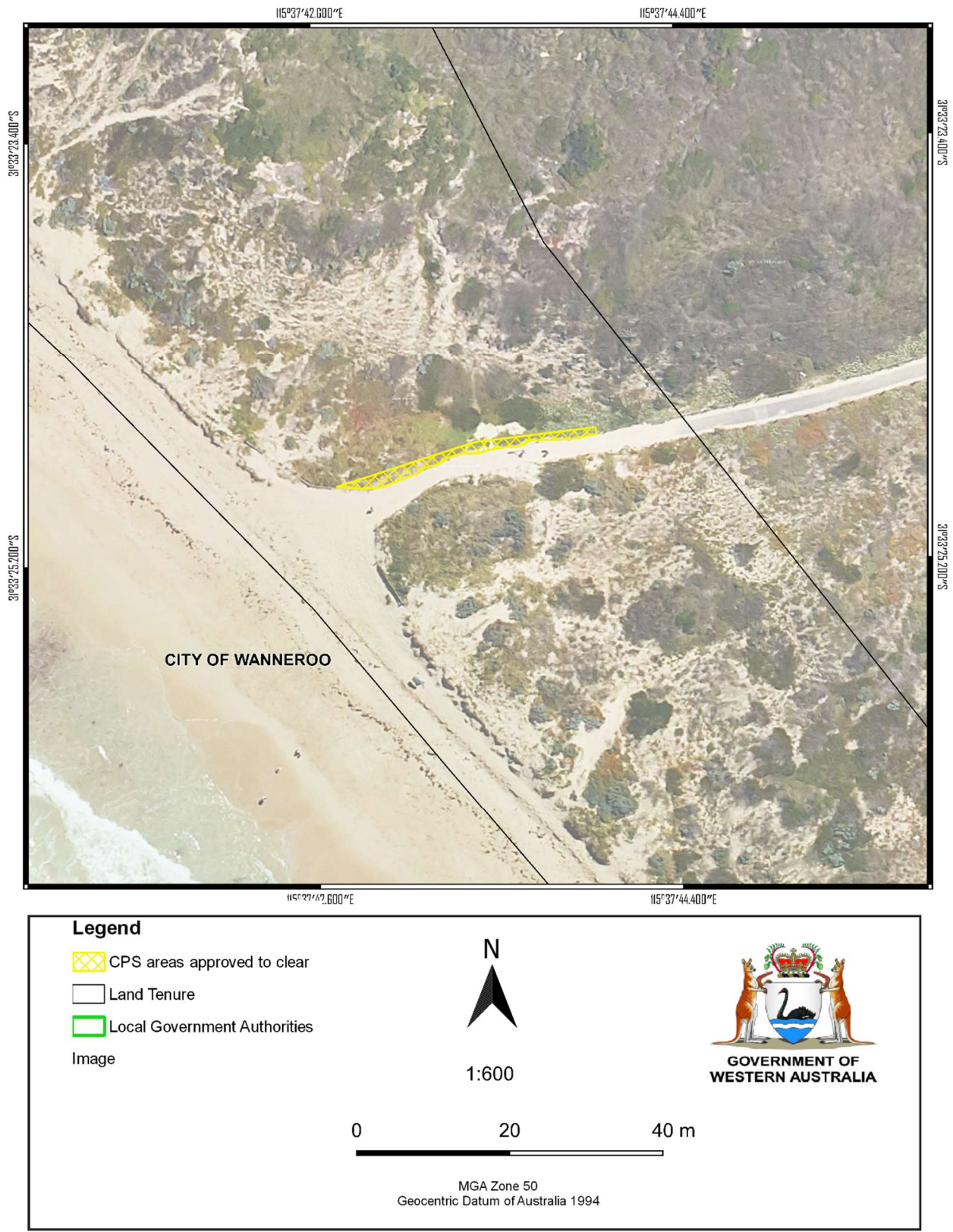
After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing can be minimised and managed and unlikely lead to an unacceptable risk to environmental values of Bush Forever area 397.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- Avoid, minimise to reduce the impacts and extent of clearing; and
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback.

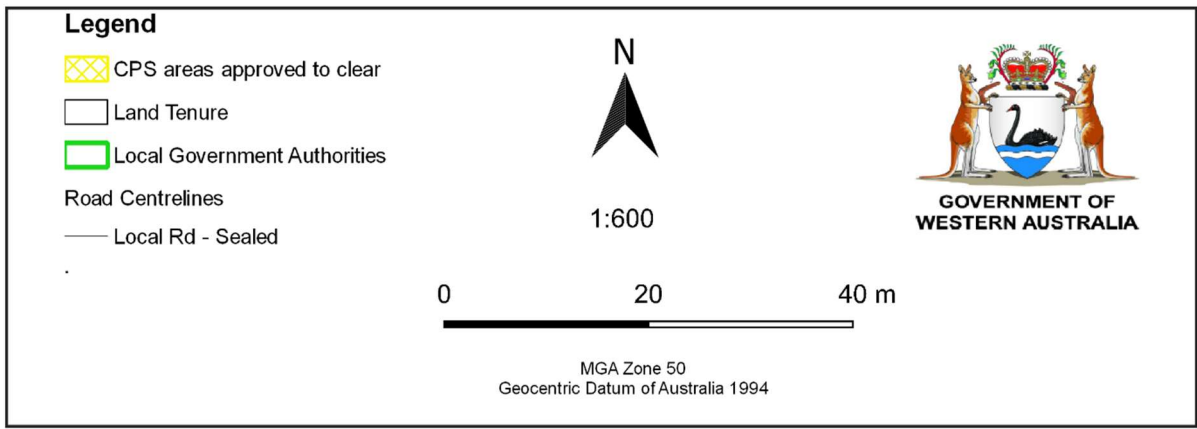
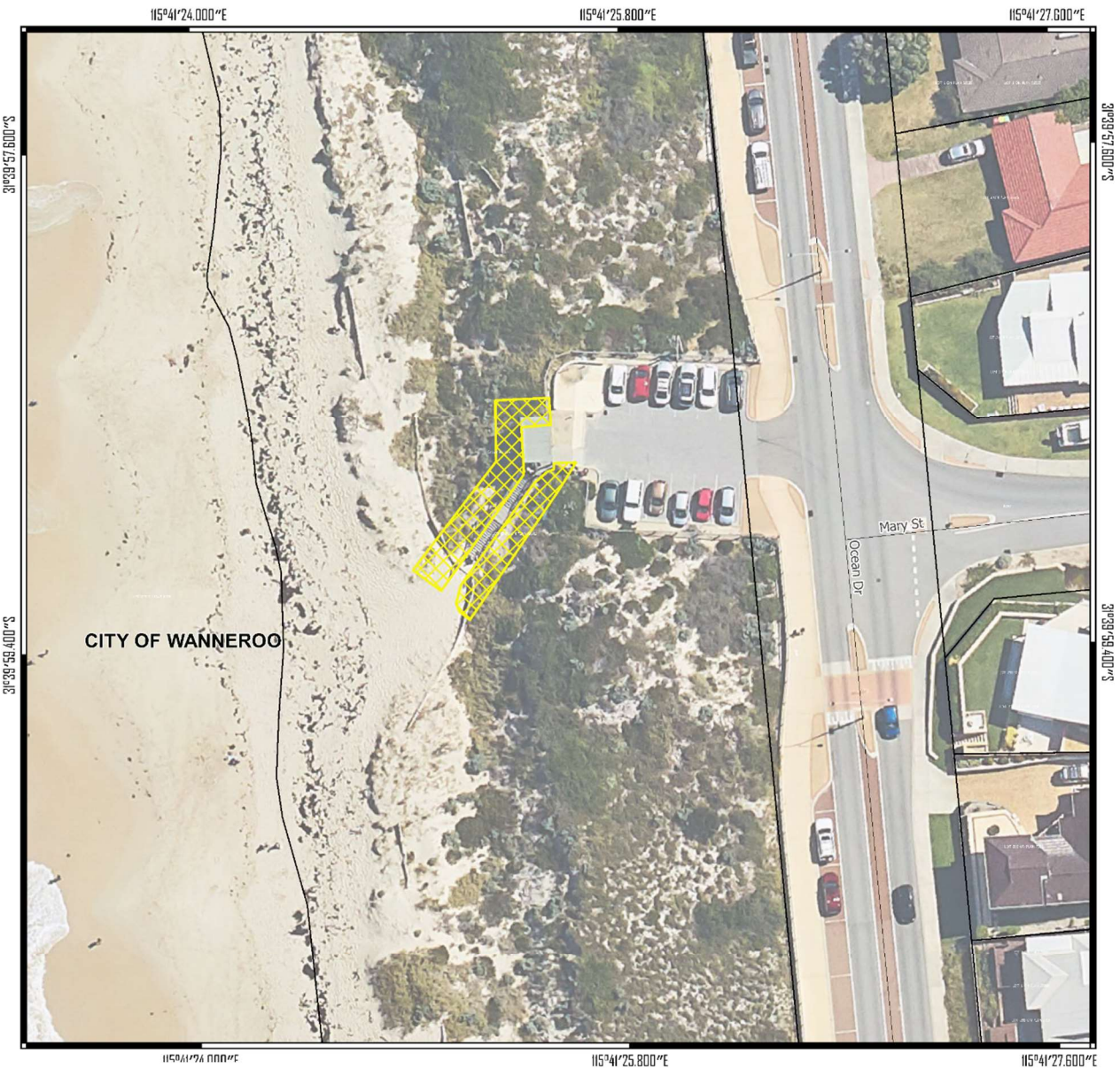


# 1.5. Site map



**Figure 1. Map of the application area (Area A – Yancheap)**





**Figure 2. Map of the application area (Area B – Quinns Rocks)**

The areas crosshatched 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.
- 

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

Supporting information for Area A was submitted by the applicant, advising the following avoidance and mitigation measures:

- The applicant noted that the vegetation present along the southern side of the Leonard Way BAW contained higher native species richness and density, less weed species and was of a higher vegetation condition than that of the northern side. By undertaking the proposed clearing on the northern side of the Leonard Way BAW, the applicant avoids impacting coastal native heath of higher vegetation condition, species richness and density.
- The applicant chose to widen an existing BAW, and not build a new BAW to accommodate emergency, maintenance or machinery access in another location closer to Fisherman's Hollow Beach. The applicant advised that this avoided the requirement to clear undisturbed, good or better condition native coastal vegetation in another area of Yanchep foreshore.
- The applicant advised that they intend to avoid excessive clearing by clearing only what is necessary. The machinery requirement to remove a portion of the limestone outcrop deemed to be a safety concern, is a 14 tonne excavator (with a width of 2.5 metres). Therefore, the location and size of the proposed clearing requirements have been limited to only accommodate the traversing space and access requirements of the abovementioned Excavator; and
- The applicant will survey and clearly delineate the proposed clearing boundaries (with bunting/flagging) to ensure that no un-authorized clearing occurs outside of these boundaries (City of Wanneroo, 2022a).

Supporting information for Area B was submitted by the applicant, advising the following avoidance and mitigation measures:

- The clearing and disturbance footprint has been reduced by locating the new BAW structure in the exact alignment of the existing BAW structure;
- The clearing and disturbance footprint has been reduced by installing the pile foundations from either the carpark, the cleared alignment of the existing BAW structure or from the beach;
- Surveying and clearly delineating the proposed clearing boundaries (with bunting/flagging) to ensure that no un-authorized clearing occurs outside of these boundaries;
- The potential of wind erosion has been reduced by locating the new BAW structure in the exact alignment of the existing BAW structure (i.e. maintaining vegetation cover in surrounding areas);
- The potential of wind and water erosion of the dune environment will be reduced by installing and securing coir mesh matting in resultant temporarily disturbed areas; and

- The potential of wind and water erosion of the temporarily disturbed dune environment will be reduced by planting locally native species into the areas of installed coir mesh matting (City of Wanneroo, 2022b).

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

### 3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix A) 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 **Error! Reference source not found.** B) identified that the impacts of the proposed clearing present a risk to a conservation areas. 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. Conservation areas - Clearing Principles (h)

##### Assessment

The application areas occur within Bush Forever area 397 (Coastal Strip from Wilbinga to Mindarie). This area is approximately 400 hectares in size (Government of Western Australia, 2000).

The proposed clearing will impact on the environmental values of this Bush Forever area through the direct removal of vegetation, however given the small amount of vegetation proposed to be cleared over two distinct areas that are predominantly in a degraded (Keighery, 1994) condition dominated by weeds, the clearing proposed is not likely to have a significant impact upon this conservation area. The proposed clearing will not sever any ecological linkages as the clearing width is minimal and fauna will still be able to traverse the area.

The proposed clearing may indirectly impact this conservation area through the potential introduction and spread of weeds and dieback.

##### Conclusion

For the reasons set out above, it is considered that the impacts of the proposed clearing on Bush Forever area 397 can be managed by taking steps to minimise the risk of the introduction and spread of weeds and dieback. The loss of 0.02 hectares of vegetation within Bush Forever area 397 does not constitute a significant residual impact.

##### Conditions

To address the above impacts, the following management measure will be required as a condition on the clearing permit:

- Implement weed and dieback management measures to mitigate impacts to adjacent vegetation.

### 3.3. Relevant planning instruments and other matters

The application was advertised on the DWER website for a 14 Day public comment period on 9 March 2022. No public submissions were received in relation to this application.

The application is located within Bush Forever area 397 - Coastal Strip from Wilbinga to Mindarie. SPP 2.8 sets out that proposals and decision making in respect of Bush Forever areas should support a general presumption against the clearing of regionally significant bushland or other degrading activities, except where a proposal or decision is consistent with the overall purpose and intent of the existing Crown reserve, or can be reasonably justified with regard to wider environmental, social, economic or recreational needs (clause 5.1.2.1(i)(e)). The Policy also sets out that unavoidable adverse impacts on regionally significant bushland within a Bush Forever area should be offset at a ratio of at least 1:1 in habitat hectares.

DPLH advised that the site is reserved Parks and Recreations in the Metropolitan Region Scheme (MRS) and has the implementation category in State Planning Policy 2.8 - *Bushland Policy for the Perth Metropolitan Region* (SPP 2.8) as Bush Forever reserves (existing or proposed). Section 5.1.2.1 of SPP 2.8 outlines policy measures for Bush Forever reserves, namely proposals should support a general presumption against the clearing of regionally significant bushland, except; (i)(e) *is consistent with the overall purpose and intent of an existing Crown reserve or can be reasonably justified with regard to wider environmental, social, economic or recreational needs, and all reasonable alternatives have been considered in order to avoid or minimise any direct loss of regionally significant*

*bushland, and reasonable offset strategies are secured to offset any loss of regionally significant bushland, where appropriate and practical (DPLH 2022).*

DPLH noted that 'a portion of a limestone outcrop north of Fisherman's Hollow Beach is deemed to be at risk of falling, and the current accessway is not wide enough for machinery access to remove this risk. The widening of the accessway will also assist with ongoing hazard reduction. Given the small size of the clearing, the wider social benefits and the consideration of other reasonable alternatives, there are no objections to the proposal (DPLH, 2022).

DPLH recommended the following to ensure the integrity of Bush Forever area 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, 2022):

- An offset package is prepared and approved by the Department of Water and Environmental Regulation 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 would be recommended that there is an environmental gain for any clearing undertaken, i.e. at least 2 x the calculated loss in habitat hectares, which can include revegetation. It would be preferable that the offset measures are provided onsite at Bush Forever area 397; and
- Fencing, where considered appropriate, be installed to mitigate any adverse impacts from pedestrian traffic on Bush Forever area 397.

The Delegated Officer determined that due to the small size of the application area (0.02 hectares) and that the vegetation is predominantly in a degraded (Keighery, 1994) condition, the clearing proposed is not likely to have a significant impact upon this conservation area and an offset is not required in this instance.

One Aboriginal sites of significance 'Yanchep Beach' has been mapped within the application area within Area A. 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 A. 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 B.

### A.1. Site characteristics

| Characteristic         | Details   |
|------------------------|---|
| Local context          | <p>The areas proposed to be cleared are part of an expansive tract of native vegetation in the intensive land use zone of Western Australia. The application areas are adjacent to remnant native vegetation that extends south to north along the coastline.</p> <p>The application areas are bound by the Indian Ocean to the west and Brazier road (Area A) and Ocean drive (Area B) to the east.</p> <p>Spatial data indicates the local area (10-kilometre radius from the centre of the areas proposed to be cleared) of Area A and Area B retain approximately 65 and 42 per cent of the original native vegetation cover respectively.</p>  |
| Ecological linkage     | The application areas occur within Bush forever area 397.   |
| Conservation areas     | The application area occurs within Bush Forever area 397 (Coastal Strip from Wilbinga to Mindarie). Neerabup National Park and Yanchep National Park are located 3.4 kilometres and 3.6 kilometres from Area B and Area A respectively.   |
| Vegetation description | <p>A site inspection and photographs supplied by the applicant indicate the vegetation within the proposed clearing areas consist of:</p> <ul style="list-style-type: none"> <li>Area A: predominantly consists of weed species with the presence of occasional <i>Olearia axillaris</i> and <i>Spinifex longifolia</i>; and</li> <li>Area B: comprises of weed species predominantly at the beach end of the existing structure and native species including <i>Acacia cyclops</i>, <i>Acanthocarpus preissii</i>, <i>Atriplex</i> sp., <i>Carpobrotus virescens</i>, <i>Ficinia nodosa</i>, <i>Olearia axillaris</i>, <i>Rhagodia baccata</i>, <i>Scaevola crassifolia</i> and <i>Spinifex longifolia</i>. (City of Wanneroo 2022a and 2022b).</li> </ul> <p>Representative photos are available in Appendix D.</p> <p>This is consistent with the Quindalup Complex vegetation type mapped over the application area, 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 (Hedde et al. 1980).</p> <p>The mapped vegetation type retains approximately 60 per cent of the original extent (Government of Western Australia 2019b).</p> |
| Vegetation condition   | <p>A site inspection and photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in a completely degraded to good (Keighery, 1994) condition.</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix C. Representative photos are available in Appendix D.</p>   |

| Characteristic           | Details  |                 |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
|--------------------------|--|-----------------|----------|--------------|--------------|-----------|-----------|---------------|---------------|----------|--------------|----------|----------|--------------------------|----------|----------|-------------------|---------------|-----------|---------------|----------|----------|----------|----------|----------|
|                          | <p>Area A has been subject to ongoing edge effects from the beach access way (BAW) located parallel and from wind erosion funnelling beach sand up the access way off onto the northern edge of the BAW. The application area is predominantly weed species and in a degraded (Keighery, 1994) condition with a small area of good (Keighery, 1994) condition vegetation (City of Wanneroo, 2022a).</p> <p>Area B has been previously cleared due to ongoing unauthorised access and vandalism. This area included areas of previous revegetation sites undertaken by the City of Wanneroo. The vegetation condition ranges from degraded to good (Keighery, 1994).</p>  |                 |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Climate and landform     | <p>The climate of the application area is warm and temperate. The annual average rainfall is approximately 800 millimetres. Evapotranspiration over the application area is approximately 700 millimetres.</p> <p>The geology mapped over the application area is characterised by alluvial, shoreline, and eolian deposits. The groundwater salinity within the application area typically ranges from approximately 500-1,000 milligrams per litre total dissolved solids.</p>   |                 |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Soil description         | <p>The soil mapped over the application areas include the following:</p> <ul style="list-style-type: none"> <li>Quindalup South youngest dune Phase (211Qu_Q4), described as the youngest phase. Irregular dunes with slopes up to 20%. Loose pale brown calcareous sand with no soil profile development (Area A and B); and</li> <li>Quindalup South water, beach Phase (211QuU_Beach), described as beach (Area B).</li> </ul>  |                 |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Land degradation risk    | <p>The degradation risk factors mapped over the application areas are detailed below:</p> <table border="1"> <thead> <tr> <th>Risk Categories</th> <th>211Qu_Q4</th> <th>211QuU_Beach</th> </tr> </thead> <tbody> <tr> <td>Wind erosion</td> <td>High (H2)</td> <td>High (H2)</td> </tr> <tr> <td>Water erosion</td> <td>Moderate (M2)</td> <td>Low (L1)</td> </tr> <tr> <td>Waterlogging</td> <td>Low (L2)</td> <td>Low (L1)</td> </tr> <tr> <td>Subsurface acidification</td> <td>Low (L1)</td> <td>Low (L1)</td> </tr> <tr> <td>Phosphorus export</td> <td>Moderate (M2)</td> <td>High (H2)</td> </tr> <tr> <td>Salinity risk</td> <td>Low (L1)</td> <td>Low (L1)</td> </tr> <tr> <td>Flooding</td> <td>Low (L1)</td> <td>Low (L1)</td> </tr> </tbody> </table> | Risk Categories | 211Qu_Q4 | 211QuU_Beach | Wind erosion | High (H2) | High (H2) | Water erosion | Moderate (M2) | Low (L1) | Waterlogging | Low (L2) | Low (L1) | Subsurface acidification | Low (L1) | Low (L1) | Phosphorus export | Moderate (M2) | High (H2) | Salinity risk | Low (L1) | Low (L1) | Flooding | Low (L1) | Low (L1) |
| Risk Categories          | 211Qu_Q4   | 211QuU_Beach    |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Wind erosion             | High (H2)  | High (H2)       |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Water erosion            | Moderate (M2)  | Low (L1)        |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Waterlogging             | Low (L2)   | Low (L1)        |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Subsurface acidification | Low (L1)   | Low (L1)        |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Phosphorus export        | Moderate (M2)  | High (H2)       |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Salinity risk            | Low (L1)   | Low (L1)        |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Flooding                 | Low (L1)   | Low (L1)        |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Waterbodies              | No watercourse or wetlands are mapped within proximity to the application area.  |                 |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Hydrogeography           | The application areas are mapped within Yanchep and Perth Groundwater Areas proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> .  |                 |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Flora                    | <p>According to available databases, 19 flora of conservation significance have been recorded within the local area of Area A, comprising one Threatened, two Priority 1, four Priority 2, ten Priority 3 and two Priority 4 flora taxa,</p> <p>Within the local area of Area B, 18 flora of conservation significance have been recorded within the local area, comprising three Threatened, two Priority 1, four Priority 2, seven Priority 3 and two Priority 4 flora taxa.</p> <p>A site inspection and photographs supplied by the applicant did not identify any threatened or priority flora within the application areas.</p>  |                 |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |
| Ecological communities   | <p>According to available databases, six conservation significant ecological communities have been mapped within the local area of Area A and Area B.</p> <p>A site inspection and photographs supplied by the applicant did not identify vegetation representative of a conservation significant ecological community.</p>  |                 |          |              |              |           |           |               |               |          |              |          |          |                          |          |          |                   |               |           |               |          |          |          |          |          |

| Characteristic | Details  |
|----------------|--|
| Fauna          | <p>Twenty-four and 18 conservation significant fauna were identified within the local area of Area A and Area B respectively.</p> <p>A site inspection and photographs supplied by the applicant did not identify any fauna habitat for conservation significant fauna within the application areas.</p> |

## A.2. Vegetation extent

|                      | Pre-European extent (ha) | Current extent (ha) | Extent remaining (%) | Current extent in all DBCA managed land (ha) | Current proportion (%) of pre-European extent in all DBCA managed land |
|----------------------|--------------------------|---------------------|----------------------|--|--|
| IBRA bioregion*      |                          |                     |                      |  |  |
| Swan Coastal Plain   | 1,501,221.93             | 579,813.47          | 38.6                 | 222,916.97                                   | 14.85  |
| Vegetation complex   |                          |                     |                      |  |  |
| Quindalup Complex    | 54,573.87                | 33,011.64           | 60.5                 | 5,994.64                                     | 11   |
| Local area           |                          |                     |                      |  |  |
| 10km radius (Area A) | -                        | -                   | 65.3                 | -  | -  |
| 10km radius (Area B) | -                        | -                   | 41.5                 | -  | -  |

\*Government of Western Australia (2019a)

\*\*Government of Western Australia (2019b)

## A.3. Land degradation risk table

| Risk categories          | Land Unit 1  |
|--------------------------|--|
| Wind erosion             | M1: 10-30% of the map unit has a high to extreme hazard                        |
| Water erosion            | L2: 3-10% of the map unit has a very high to extreme hazard                    |
| Salinity                 | L2: 3-10% of the map unit has a moderate or high hazard or is presently saline |
| Subsurface Acidification | 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                          |
| Water logging            | L2: 3-10% of the map unit has a moderate to very high to risk                  |
| Phosphorus export risk   | L2: 3-10% of the map unit has a high to extreme hazard                         |

## Appendix B. 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> <i>“Native vegetation should not be cleared if it comprises a high level of biodiversity.”</i></p> <p><u>Assessment:</u></p> <p>From a site inspection undertaken and photographs supplied by the applicant (City of Wanneroo 2022a and 2022b) the area proposed to be cleared does not contain significant flora, fauna, habitats, or assemblages of plants.</p> <p>The application areas are predominantly in a degraded (Keighery, 1994) condition that are dominated by weeds. The application areas are not considered to comprise a high level of biodiversity.</p>   | Not likely to be at variance | No   |
| <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> The clearing of 0.02 hectares of native vegetation is proposed to be cleared across two areas that are predominantly in a degraded (Keighery, 1994) condition of weed-dominated vegetation. The application areas are located adjacent to existing tracks and structures and are also adjacent to or within close proximity to remnant vegetation in better condition. Given the above, the vegetation proposed to be cleared is not likely to comprise significant habitat for native fauna.</p> | Not likely to be at variance | No   |
| <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>From a site inspection undertaken and photographs supplied by the applicant (City of Wanneroo 2022a and 2022b), the area proposed to be cleared is unlikely to contain any threatened flora.</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 areas do not contain species that are representative of a threatened ecological community.</p>  | Not likely to be at variance | No   |
| <b>Environmental value: 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 retention and extent of the mapped vegetation type and native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia and the application area is not considered to occur within an extensively cleared landscape.</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>   | May be at variance           | Yes<br><i>Refer to Section 3.2.1, above.</i> |



| Assessment against the clearing principles  | Variance level               | Is further consideration required? |
|---|------------------------------|------------------------------------|
| <p><u>Assessment:</u> The application area occurs within Bush Forever area 397 (Coastal strip from Wilbinga to Mindarie).</p> <p>The clearing will impact this conservation area through the direct clearing of 0.02 hectares of native vegetation. There is potential the proposed clearing activities could result in the introduction and spread of weeds and dieback into adjacent vegetation, which could impact habitat quality.</p>  |                              |                                    |
| <b>Environmental value: 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> The application area is located adjacent to the Indian Ocean. Given no watercourse or wetlands are mapped within close proximity of the application area, the proposed clearing is not likely to impact on or off-site hydrology and water quality. The vegetation proposed to be cleared is not considered growing in or in association with a wetland or watercourse.</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. Given the small area (0.02 hectares) proposed to be cleared over two areas that are predominantly in a degraded (Keighery, 1994) condition and previously disturbed, the proposed clearing is not likely to have an appreciable impact on land degradation.</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 close proximity of the application area, the proposed clearing is unlikely to impact surface water quality.</p> <p>Given the low salinity level and the extent of native vegetation proposed to be cleared, the clearing is unlikely to impact upon 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>The mapped soils and topographic contours in the surrounding area indicate the proposed clearing is not likely to contribute to increased incidence or intensity of flooding. The sandy soil associated with the dune is also likely to have a low flood risk.</p>  | Not likely to be at variance | No                                 |

## 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. |
| 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. Applicant site inspection report excerpts and photographs of the vegetation

The City of Wanneroo conducted a vegetation assessment of Area A on the 8 September 2021 and noted the following:

- The application area has been subject to ongoing edge effects from the BAW located parallel and from wind erosion funnelling beach sand up the access way off onto the northern edge of the BAW. This sand action has resulted in the deposition and accumulation of sand within the application area, often covering plants located in the immediate vicinity;
- The vegetation within the application area is predominately weed species, with the exception of the westernmost end; and
- The vegetation condition along the linear application area ranges from a majority degraded condition (Keighery, 1994) to a small area of good condition (Keighery, 1994) at the beach end of the BAW.

**Table 2: Species identified during the City's onsite vegetation assessment**

| NATIVE SPECIES             | WEED SPECIES                                    |
|----------------------------|---|
| <i>Olearia axillaris</i>   |   |
| <i>Spinifex longifolia</i> |   |
|                            | <i>Arctotis</i> sp. (African daisy)             |
|                            | <i>Ehrharta villosa</i> (Pyp grass)             |
|                            | <i>Oxalis pes-caprae</i> (Soursob)              |
|                            | <i>Pelargonium capitatum</i> (Rose pelargonium) |
|                            | <i>Tetragonia decumbens</i> (Sea spinach)       |
|                            | <i>Trachyandra divaricata</i> (Dune onion weed) |

(City of Wanneroo, 2022a)



Figure 1. Photograph of Area A (City of Wanneroo, 2022a)



Figure 2. Photograph of Area A (City of Wanneroo, 2022a)



Figure 3. Photograph of Area A (City of Wanneroo, 2022a)



Figure 4. Photograph of Area A (City of Wanneroo, 2022a)

The City of Wanneroo undertook a vegetation assessment of Area B on 6 October 2021 and noted the following:

- Areas within the proposed clearing area have been previously cleared due to ongoing unauthorised access and vandalism (continual access to underneath the lookout and seating section of the existing BAW);
- The proposed clearing area includes areas of previous City revegetation sites from 2014/15 to 2015/16;
- The vegetation at the beach end of the existing structure is predominately weed species; and
- The vegetation condition in proximity to the existing BAW structure ranges from good to degraded.



**Table 3: Species identified during the City’s onsite vegetation assessment**

| NATIVE SPECIES                                 | WEED SPECIES                                    |
|--|---|
| <i>Acacia cyclops</i>                          | <i>Avena fatua</i> (Wild Oats)                  |
| <i>Acanthocarpus preissii</i>                  | <i>Bromus diandrus</i> (Great Brome)            |
| <i>Atriplex</i> sp.                            | <i>Gazania linearis</i>                         |
| <i>Carpobrotus virescens</i> (Coastal Pigface) | <i>Lolium rigidum</i> (Rye Grass)               |
| <i>Ficinia nodosa</i>                          | <i>Tetragonia decumbens</i> (Sea Spinach)       |
| <i>Olearia axillaris</i>                       | <i>Thinopyrum distichum</i>                     |
| <i>Rhagodia baccata</i>                        | <i>Trachyandra divaricata</i> (Dune Onion Weed) |
| <i>Scaevola crassifolia</i>                    |   |
| <i>Spinifex longifolia</i>                     |   |



Figure 5. Photograph of Area B (City of Wanneroo, 2021b)

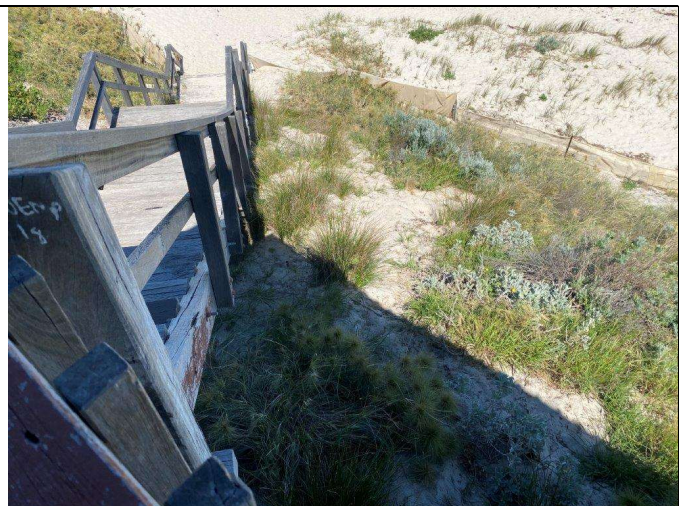


Figure 6. Photograph of Area B (City of Wanneroo, 2021b)





Figure 7. Photograph of Area B (City of Wanneroo, 2021b)



Figure 8. Photograph of Area B (City of Wanneroo, 2021b)

## Appendix E. Sources of information

### E.1. GIS databases

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

### E.2. References

City of Wanneroo (2022) *Clearing permit application CPS 9566/1*, received 12 January 2022 (DWER Ref: DWERDT549151).

City of Wanneroo (2022a) Lot 15451, 501 Pipidinny Road, Eglington - Native Vegetation Clearing Permit Supporting Documentation, January 2022, received 12 January 2022 (DWER Ref: DWERDT549189).

City of Wanneroo (2022b) Lot 15450, Lot 15450, 2397L Marmion Avenue, Alkimos - Native Vegetation Clearing Permit Application Supporting Documentation, January 2022, received 12 January 2022 (DWER Ref: DWERDT549152).

- 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](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) (2022). *Bush Forever advice for clearing permit application CPS 9566/1*, received 18 March 2022 (DWER Ref: DWERDT578598).
- 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](https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF).
- Government of Western Australia (2000) *Bush Forever. Volume 2. Directory of Bush Forever Sites. December 2000*
- Government of Western Australia. (2019a) *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>
- Government of Western Australia (2019b) *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>
- 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.