



## CLEARING PERMIT

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

<b>Purpose Permit number:</b>	CPS 9578/2
<b>Permit Holder:</b>	City of Wanneroo
<b>Duration of Permit:</b>	From 7 November 2022 to 7 November 2037

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

### **PART I – CLEARING AUTHORISED**

#### **1. Clearing authorised (purpose)**

The permit holder is authorised to clear *native vegetation* for the purpose of completing an Unexploded Ordinance (UXO) remediation search and geotechnical survey to enable final design completion, and construction of a beach access, car park, concrete pathway and associated infrastructure.

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

Lot 15452 on Deposited Plan 40341 (Crown Reserve 20561), Two Rocks  
 Lot 13321 on Plan 21931 (Crown Reserve 45935), Two Rocks  
 Lot 8613 on Deposited Plan 213232 (Crown Reserve 30959), Two Rocks  
 Lot 8989 on Deposited Plan 213232, Two Rocks

#### **3. Clearing authorised**

The permit holder must not clear more than 1.56 hectares of *native vegetation* within the areas cross-hatched yellow in Figures 1a and 1b of Schedule 1.

#### **4. Period during which clearing is authorised**

The permit holder must not clear any *native vegetation* after 7 November 2032.

### **PART II – MANAGEMENT CONDITIONS**

#### **5. Avoid, minimise and reduce the 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.

## 6. 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;
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared; and
- (d) ensure that personnel carrying out the works are trained in *appropriate plant disease hygiene procedures* and have access to any *equipment or materials needed for plant disease hygiene*.

## 7. Directional clearing

The permit holder must:

- (a) conduct *clearing* activities in a slow, progressive manner towards adjacent remnant *native vegetation*; and
- (b) allow reasonable time for fauna present within the area being cleared to move into adjacent *native vegetation* ahead of the *clearing* activity.

## 8. Erosion management

- (a) Where possible, the permit holder must begin works associated with the authorised activities under this permit within two (2) months of undertaking *clearing* authorised under this permit.
- (b) Where works associated with the authorised activities cannot be undertaken within two (2) months of *clearing*, the permit holder must apply a suitable *dust suppressant* to all areas of bare ground within cleared areas to reduce the potential for wind erosion.

## 9. Revegetation and rehabilitation requirements (Bush Forever mitigation)

Within 12 months of the commencement of *clearing*, the permit holder must undertake *revegetation* and *rehabilitation* activities including but not limited to the following actions:

- (a) retain the vegetative material and topsoil removed by *clearing* authorised under this permit and stockpile the vegetative material and topsoil to be used in *revegetation* in an area that has already been cleared within the area cross-hatched red in Figure 2 of Schedule 1.
- (b) commence *revegetation* and *rehabilitation* of the areas cross-hatched red in Figure 2 of Schedule 1 by:
  - (i) laying the appropriate vegetative material and topsoil retained under condition 9(a);

- (ii) deliberately *planting* tube stock and salvaged *native vegetation*;
  - (iii) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the areas; and
  - (iv) ensuring the *revegetation* and *rehabilitation* composition comprises vegetation resistant to wind erosion.
- (c) implement hygiene protocols by cleaning earth-moving machinery of soil and vegetation prior to entering and leaving the *revegetation* and *rehabilitation* sites;
  - (d) establish at least four 5 x 5 metre quadrat monitoring sites within *revegetated* areas;
  - (e) monitor quadrats specified in condition 9(d) at least annually;
  - (f) monitoring of quadrats specified in condition 9(d) is to be undertaken by an *environmental specialist*;
  - (g) achieve the completion criteria specified in the attached Schedule 2 (revegetation completion criteria) after the three year monitoring period for areas *revegetated* and *rehabilitated* under this permit;
  - (h) undertake weed control activities on an 'as needs' basis to maintain a minimum criteria in the attached Schedule 2 (revegetation completion criteria);
  - (i) undertake *remedial actions* for areas *revegetated* where monitoring indicates that revegetation has not met the completion criteria, outlined in the attached Schedule 2 (revegetation completion criteria), including:
    - (i) *revegetate* the area by deliberately *planting native vegetation* that will result in the minimum targets specified in the attached Schedule 2 (*revegetation* completion criteria) ensuring only *local provenance* seeds and propagating material are used;
    - (ii) undertake further weed control activities;
    - (iii) undertake watering activities; and
    - (iv) undertake annual monitoring of each *revegetated* and *rehabilitated* site, until the completion criteria outlined in the attached Schedule 2 (*revegetation* completion criteria) are met.

## 10. Flora management

- (a) Where *priority flora* is identified in accordance with the 'Two Rocks Beach Access Way Flora and Vegetation Survey – Detailed and Targeted: One Tree Botanical. Revision 2.1. 17 November 2020', the permit holder must clear no more than four *Beyeria cinerea* subsp. *cinerea* individuals identified within the area cross-hatched yellow in Figure 1 of Schedule 1.
- (b) The permit holder must ensure that the location of *priority flora* recorded in accordance with the 'Two Rocks Beach Access Way Flora and Vegetation Survey – Detailed and Targeted: One Tree Botanical. Revision 2.1. 17 November 2020', including all *Beyeria cinerea* subsp. *cinerea*, *Leucopogon maritimus* and *Stylidium maritimum* within 30 metres from the outer boundary of the area cross-hatched yellow in Figure 1 of Schedule 1, are identified and demarcated through flagging. These can be identified either as the location of individual plants, or where this is not practical, the areal extent of the population and an estimate of the number of plants are to be documented using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA20), expressing the geographical coordinates in Eastings and Northings or decimal degrees. This must be completed prior to commencing:
  - (i) the Unexploded Ordnance Search and remediation works;
  - (ii) the construction of the beach access road, carpark, pathway and associated infrastructure; and

- (iii) *revegetation* and *rehabilitation* required under condition 9 of this permit.
- (c) Where *priority flora* are identified and demarcated under condition 10b, the permit holder must ensure that no *clearing* of *priority flora* occurs within the area cross-hatched yellow in Figure 1 of Schedule 1.

## 11. Vegetation management – fencing

The permit holder must:

- (a) Within 12 months of *clearing*, the permit holder must construct a fence along the perimeters of the areas cross-hatched red on attached Schedule 1, Figure 3.
  - (i) Fences should restrict the movement of invasive wildlife.
  - (ii) Within one month of installing the above fences, in accordance with condition 11(a)(i) of this permit, the permit holder must notify the *CEO* in writing that the fencing has been completed.
  - (iii) The permit holder must inspect the fence constructed in accordance with condition 11(a)(i) of this permit every 12 months until an *environmental specialist* has determined that the completion criteria outlined in the attached Schedule 2 (*revegetation* completion criteria) have been achieved in accordance with conditions 9(e)-(i), to ensure the fence is protecting adjacent vegetation by excluding pathway users and vehicles.
  - (iv) Where the permit holder identifies that the fence constructed in accordance with condition 11(a)(i) of this permit is not protecting adjacent vegetation by excluding pathway users and vehicles, the permit holder must repair the fence.
- (b) Within 12 months of *clearing*, the permit holder must construct a fence along the perimeters of the areas cross-hatched red on attached Schedule 1, Figure 4.
  - (i) Fences should restrict the movement of invasive wildlife.
  - (ii) Within one month of installing the above fences, in accordance with condition 11(b)(i) of this permit, the permit holder must notify the *CEO* in writing that the fencing has been completed.
  - (iii) The permit holder must inspect the fence constructed in accordance with condition 11(b)(i) of this permit every 12 months until an *environmental specialist* has determined that the completion criteria outlined in the attached Schedule 2 (*revegetation* completion criteria) have been achieved in accordance with conditions 9(e)-(i), to ensure the fence is protecting adjacent vegetation by excluding pathway users and vehicles.
  - (iv) Where the permit holder identifies that the fence constructed in accordance with condition 11(b)(i) of this permit is not protecting adjacent vegetation by excluding pathway users, vehicles and invasive wildlife, the permit holder must repair the fence.
- (c) Within 12 months of an *environmental specialist* determining that the completion criteria outlined in the attached Schedule 2 (*revegetation* completion criteria) have been achieved in accordance with conditions 9(e)-(i), the permit holder must remove the fences constructed in accordance with condition 11(a) and 11(b) along the perimeters of the areas cross-hatched red on attached Figures 3 and 4 of Schedule 1, and replace with a fence that allows for the movement of wildlife.
  - (i) Fences should allow for the movement of wildlife by being raised 15 centimetres from the ground.
  - (ii) Within one month of installing the above fences, in accordance with condition 11(c)(i) of this permit, the permit holder must notify the *CEO* in writing that the fencing has been completed.



- (iii) The permit holder must inspect the fence constructed in accordance with condition 11(c)(i) of this permit every 12 months for the duration of this permit to ensure the fence is protecting adjacent vegetation by excluding pathway users and vehicles.
- (iv) Where the permit holder identifies that the fence constructed in accordance with condition 11(c)(i) of this permit is not protecting adjacent vegetation by excluding pathway users and vehicles, the permit holder must repair the fence.

## 12. Offset – revegetation and rehabilitation requirements

Within 12 months of the commencement of *clearing*, the permit holder must undertake *revegetation* and *rehabilitation* activities including but not limited to the following actions:

- (a) commence *revegetation* and *rehabilitation* of at least 1.56 hectares of *native vegetation* within the areas cross-hatched red in Figure 5 of Schedule 1 by;
  - (i) deliberately *planting* tube stock and salvaged *native vegetation*; and
  - (ii) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the areas.
  - (iii) ensuring the *revegetation* composition shall include vegetation resistant to wind erosion.
- (b) implement hygiene protocols by cleaning earth-moving machinery of soil and vegetation prior to entering and leaving the *revegetation* and *rehabilitation* sites;
- (c) establish at least four 5 x 5 metre quadrat monitoring sites within *revegetated* areas;
- (d) monitor quadrats specified in condition 12(c) at least annually;
- (e) monitoring of quadrats specified in condition 12(d) is to be undertaken by an *environmental specialist*;
- (f) achieve the completion criteria specified in the attached Schedule 2 (*revegetation* completion criteria) after the three year monitoring period for areas *revegetated* and *rehabilitated* under this permit;
- (g) undertake weed control activities on an ‘as needs’ basis to maintain a minimum criteria in the attached Schedule 2 (*revegetation* completion criteria);
- (h) undertake *remedial actions* for areas *revegetated* and *rehabilitated* where monitoring indicates that revegetation has not met the completion criteria, outlined in the attached Schedule 2 (*revegetation* completion criteria), including:
  - (i) *revegetate* and *rehabilitate* the area by deliberately *planting native vegetation* that will result in the minimum targets specified in the attached Schedule 2 (*revegetation* completion criteria) ensuring only *local provenance* seeds and propagating material are used;
  - (ii) undertake further weed control activities;
  - (iii) undertake watering activities; and
  - (iv) undertake annual monitoring of each *revegetated* and *rehabilitated* site, until the completion criteria outlined in the attached Schedule 2 (*revegetation* completion criteria) are met.

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

### 13. 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 <i>clearing</i> activities generally	<ul style="list-style-type: none"> <li>(a) the species composition, structure, and density of the cleared area;</li> <li>(b) the location where the <i>clearing</i> occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings;</li> <li>(c) the date that the area was cleared;</li> <li>(d) direction of clearing;</li> <li>(e) the size of the area cleared (in hectares);</li> <li>(f) actions taken to avoid, minimise, and reduce the impacts and extent of <i>clearing</i> in accordance with condition 5;</li> <li>(g) actions taken to minimise the risk of the introduction and spread of weeds and dieback in accordance with condition 6;</li> <li>(h) evidence supporting compliance with conditions 7 and 8 of this Permit; and</li> <li>(i) evidence supporting compliance with condition 11 of this Permit, including actions taken to protect adjacent vegetation by the erection and maintenance of appropriate fencing, and the date in which the fence was constructed and/or maintained.</li> </ul>
2.	In relation to flora management pursuant to condition 10	<ul style="list-style-type: none"> <li>(a) the name and location of each <i>priority flora</i> species, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings;</li> <li>(b) actions taken to demarcate each <i>priority flora</i> species recorded;</li> <li>(c) the date <i>priority flora</i> was demarcated and the date the activities under condition 10(b)(i), 10(b)(ii) and 10(b)(iii) commenced.</li> <li>(d) actions taken to avoid the <i>clearing</i> of <i>priority flora</i> species.</li> </ul>
3.	In relation to <i>revegetation</i> and <i>rehabilitation</i> of areas pursuant to condition 9 of this permit.	<ul style="list-style-type: none"> <li>(a) the location of areas <i>revegetated</i> and <i>rehabilitated</i> recorded using a GPS unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings or decimal degrees;</li> </ul>

No.	Relevant matter	Specifications
		(b) description of the <i>revegetation</i> and <i>rehabilitation</i> activities undertaken; (c) the size of the area <i>revegetated</i> and <i>rehabilitated</i> (in hectares); (d) <i>remedial actions</i> required to be undertaken; and (e) evidence supporting compliance with condition 9 of this permit.
4.	In relation to <i>revegetation</i> and <i>rehabilitation</i> of offset areas pursuant to condition 12 of this permit.	(a) the location of areas <i>revegetated</i> and <i>rehabilitated</i> recorded using a GPS unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings or decimal degrees; (b) description of the <i>revegetation</i> and <i>rehabilitation</i> activities undertaken; (c) the size of the area <i>revegetated</i> and <i>rehabilitated</i> (in hectares); (d) <i>remedial actions</i> required to be undertaken; and (e) evidence supporting compliance with conditions 12 of this permit.

#### 14. Reporting

- (a) The permit holder must provide to the *CEO* on or before 30 June of each calendar year, a written report containing:
- (i) the records required under condition 13 of this permit; and
  - (ii) records of activities done by the permit holder under this permit between 1 January and 31 December of the preceding calendar year.
- (b) If no *clearing* authorised under this permit has been undertaken, a written report confirming that no *clearing* under this permit has been carried out, must be provided to the *CEO* on or before 31 December of each calendar year.
- (c) The permit holder must provide to the *CEO*, no later than 90 calendar days prior to the expiry date of this permit, a written report of records required under condition 13, where these records have not already been provided under condition 14(a).

## DEFINITIONS

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

**Table 2: Definitions**

Term	Definition
<i>appropriate plant disease hygiene procedures</i>	means documented procedures that include the inspection and cleaning of vehicles, machinery, equipment, tools and footwear.

<b>Term</b>	<b>Definition</b>
<i>CEO</i>	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
<i>clearing</i>	has the meaning given under section 3(1) of the EP Act.
<i>condition</i>	a condition to which this clearing permit is subject under section 51H of the EP Act.
<i>dieback</i>	means the effect of <i>Phytophthora</i> species on native vegetation.
<i>Department</i>	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.
<i>dust suppressant</i>	means a material used to stabilise soil, prevent wind erosion of granular materials, and restrict the airborne dissemination of particulate matter.
<i>EP Act</i>	<i>Environmental Protection Act 1986</i> (WA)
<i>equipment or materials needed for plant disease hygiene</i>	means plastic tubs, brushes, plastic bags, alcohol wipes and drums, backpacks or spray bottles with 70% ethanol or methylated spirits in 30% water; or 20% household bleach (with 5% active ingredient) in 80% water; or quaternary ammonium disinfectant diluted according to manufacturer's directions.
<i>environmental specialist</i>	means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of two (2) years' work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the CEO as a suitable environmental specialist.
<i>fill</i>	means material used to increase the ground level, or to fill a depression.
<i>local provenance</i>	means native vegetation seeds and propagating material from natural sources within 25 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared.
<i>mulch</i>	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
<i>native vegetation</i>	has the meaning given under section 3(1) and section 51A of the EP Act.
<i>planting</i>	means the re-establishment of vegetation by creating soil conditions and planting seedlings of the desired species.
<i>priority flora</i>	means those plant taxa described as priority flora classes 1, 2, 3, or 4 in the Department of Biodiversity, Conservation and Attractions Threatened and Priority Flora List for Western Australia (as amended from time to time).
<i>remedial action/s</i>	means for the purpose of this permit, any activity that is required to ensure successful re-establishment of understorey to its pre-clearing composition, structure and density, and may include a combination of soil treatments and <i>revegetation</i> .
<i>revegetate/revegetated/revegetation</i>	means the re-establishment of a cover of local provenance native vegetation in an area using methods such as natural regeneration, direct seeding and/or planting so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.
<i>rehabilitate/rehabilitated/rehabilitation</i>	means actively managing an area containing native vegetation in order to improve the ecological function of that area.

Term	Definition
<i>weeds</i>	<p>means any plant –</p> <ul style="list-style-type: none"> <li>(a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i>; or</li> <li>(b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or</li> <li>(c) not indigenous to the area concerned.</li> </ul>

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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*

26 March 2025



# Schedule 1

The boundary of the areas authorised to be cleared is shown in the maps below (Figures 1a-b).



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



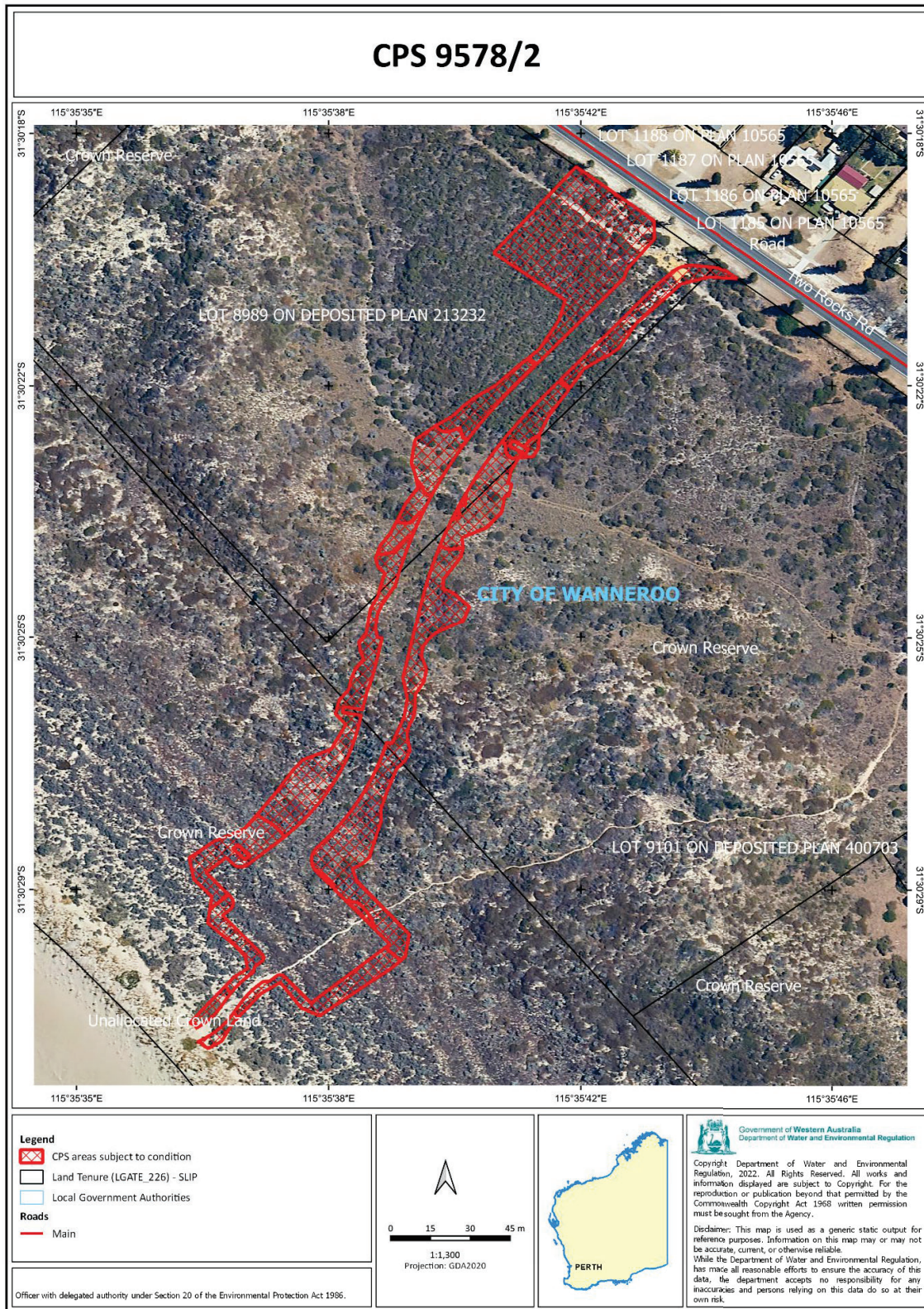
# CPS 9578/2



**Figure 2b: Map of the boundary of the area within which clearing may occur**



The boundaries of the areas where specific conditions apply are shown in the maps below (Figure 2, Figure 3, Figure 4 and Figure 5).



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**Figure 2: Map of the boundaries of the areas where revegetation and rehabilitation conditions apply**





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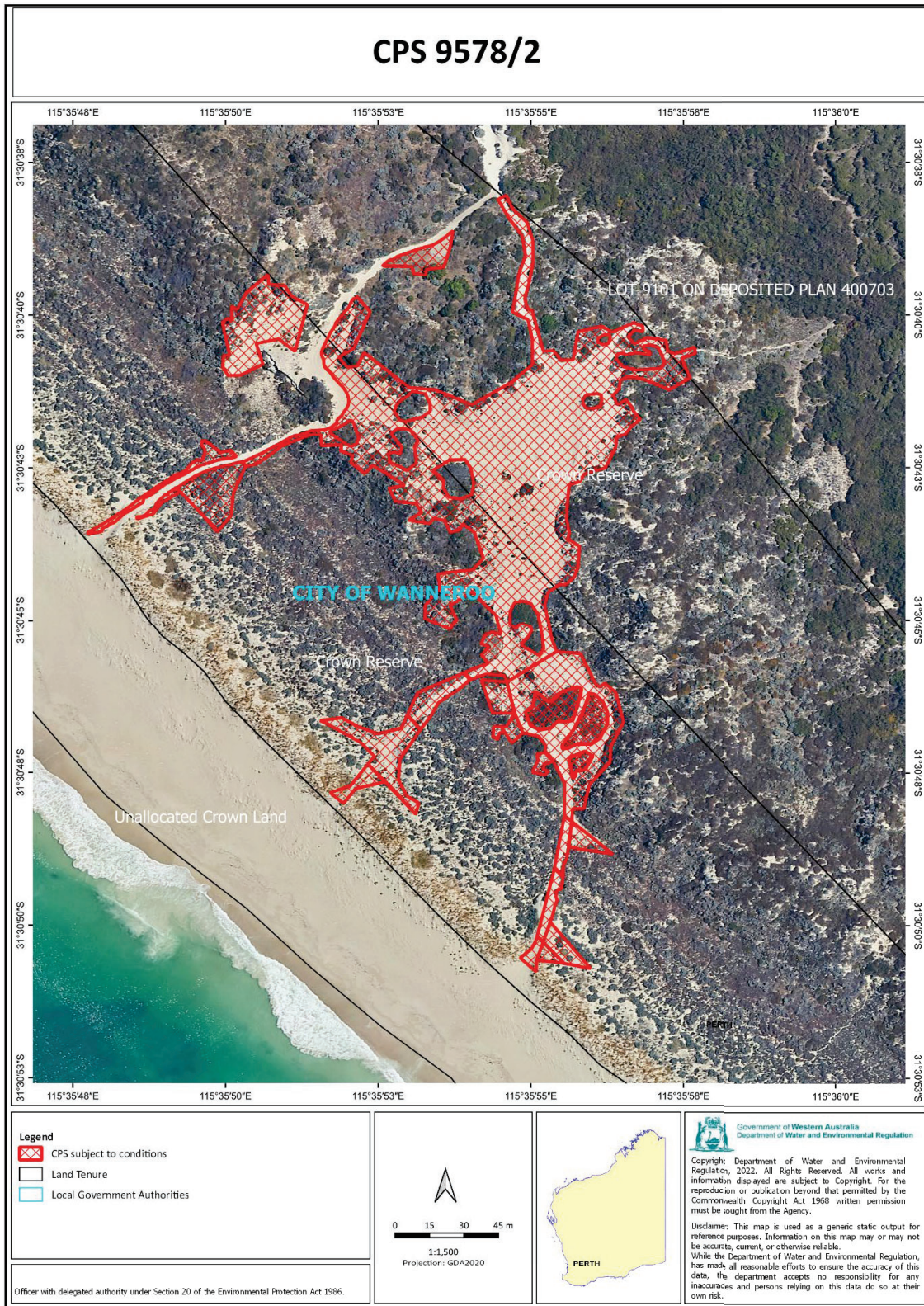
**Figure 3: Map of the boundaries of the areas where fencing conditions apply within temporary cleared areas**





**Figure 4: Map of the boundaries of the areas where fencing conditions apply within the offset site**





**Figure 5: Map of the boundaries of the areas where offset area revegetation and rehabilitation conditions apply**

## Schedule 2

CPS 9578/2 *revegetation* completion criteria are shown in the table below (Table 1).

**Table 1: Revegetation completion criteria**

Criterion	Baseline floristic data	Completion targets	Completion criteria	Monitoring
1	Species richness is the average number of species between the reference sites of each vegetation community.	Minimum of 50% of native vegetation species returned based on propagation capacity of species. Therefore revegetation areas shall have a minimum of 50% native species per quadrat, as obtained by the average recorded at the reference sites.	Species richness and number of plants / m <sup>2</sup> in the revegetation areas shall have a minimum of 50% native species per quadrat, as obtained by the average recorded at the reference sites.	The species and number of plants / m <sup>2</sup> in the revegetation areas will be counted in years 2, 3 and 5.
2	% cover of weeds in quadrats of each vegetation community is 2% - 30%	Weeds are mostly absent from the quadrats. Considering external pressures (adjacent areas used for public recreation) a target of ≤10% has been established for the revegetation areas.	The revegetation areas must have % cover of ≤10% weeds.	Monitor revegetation areas in years 2 and 3 and 5.
3	Survival rate of species to be achieved	If after year 2 and year 3 of planting, a survival rate of 2 plants/m <sup>2</sup> is not achieved, all planted tube stock that have not survived must be replanted within 12 months and monitored for a further 1 year.	The revegetation site needs to ensure a survival rate of no less than 2 plants/m <sup>2</sup> is achieved after three years, and replant any plants within 12 months of dying.	The number of surviving plants in revegetation areas will be counted in years 2, 3 and 5.
4	Rubbish is not present in bushland.	Rubbish is absent from the revegetation sites.	The revegetation site contains minimal rubbish.	Monthly asset inspections
5	Unauthorised access is minimised	Fencing is installed and maintained to prevent unauthorised access to the revegetation areas.	Fencing is maintained and there are no visible signs of vandalism and/or unauthorised access to the revegetation site.	Monthly asset inspections
6	Feral animals are mitigated	Potential impacts from introduced animals are monitored and mitigated, where required.	Mitigation measures are implemented if there are visible signs of introduced animals species e.g. rabbits, foxes etc.	Monitor revegetation areas as part of annual reports and as part of monthly asset inspections
7	Priority species are retained	All priority species located immediately outside the construction area are to be retained.	No priority species located immediately outside the construction area are impacted.	The priority species are demarcated before, during and after the UXO search and construction





# Clearing Permit Decision Report

## 1 Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 9578/1
<b>Permit type:</b>	Purpose permit
<b>Applicant name:</b>	City of Wanneroo
<b>Application received:</b>	19 October 2023
<b>Application area:</b>	1.56-hectare (Revised) of native vegetation
<b>Purpose of clearing:</b>	Facilitating future developments of beach access and carpark
<b>Method of clearing:</b>	Mechanical
<b>Property:</b>	Lot 15452 on Deposited Plan 40341, Two Rocks Lot 8613 on Deposited Plan 213232, Two Rocks Lot 13321 on Plan 21931 (Crown Reserve 45935), Two Rocks Lot 8989 on Deposited Plan 213232, Two Rocks
<b>Location (LGA area/s):</b>	City of Wanneroo
<b>Localities (suburb/s):</b>	Two Rocks

### 1.2. Description of clearing activities

This amendment is to increase the area of clearing by 0.12 hectares to allow for the installation of a conservation fence that is needed to comply with consecration efforts associated with CPS 9578/1 clearing offset and to extend the duration of the clearing permit timeframe until November 2029 due to the delays in the starting of the clearing (see Figure 1, Section 1.5). CPS 9578/1 (granted on 14 October 2022) allowed for clearing 1.43 hectares of native vegetation to facilitate the:

- completion of an unexploded ordnance (UXO) remediation search
- completion of a geotechnical survey to enable final design completion
- construction of a beach access, car park, concrete pathway and associated infrastructure

The amendment would allow for the clearing of 1.56 hectares of native vegetation within Lot 15452 on Deposited Plan 40341, Lot 8613 on Deposited Plan 213232, Lot 13321 on Plan 21931 (Crown Reserve 45935) and 8989 on Deposited Plan 213232, Two Rocks.

The application was revised multiple times during the assessment process, adding the following assessment changes:

- Additional clearing footprint increase of 0.048 hectares and total clearing area of 0.0142. Totalling a clearing of 1.56 hectares within a clearing footprint of 1.59 hectares.
- Change to the erosion management condition to allow for dust suppressant over any cleared areas to avoid erosion management where authorised activities cannot take place within 2 months,
- Changing of vegetation management fencing condition to install a fence line that prevent the movement of invasive wildlife,
- Adding the vegetation management fencing condition to include after vegetation is complete, install fencing that allows for the movement of wildlife, and
- Installation of a kangaroo gate that removes 0.001 hectares from the total rehabilitation area.

### 1.3. Decision on application

<b>Decision:</b>	Granted
<b>Decision date:</b>	26 March 2025
<b>Decision area:</b>	1.56-hectare 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 B), relevant datasets (see Appendix F.1), the findings of flora and fauna surveys (See Appendix E), clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that the proposed clearing would result in:

- The loss of 1.56 hectares of Bush Forever site 397, representing a significant remnant of native vegetation and provides suitable habitat for:
- Two Priority 3 priority ecological communities (PEC), including 0.12 hectares of the 'Northern Spearwood shrublands and woodlands' (SCP24) and 0.95 hectares of the 'Coastal shrublands on shallow sands, southern Swan Coastal Plain' (SCP29a) communities.
- Conservation significant fauna, including *Isoodon fusciventer* (quenda; Priority 4) and *Neelaps calonotos* (black-striped snake; Priority 3) habitat.
- The loss of four (4) *Beyeria cinerea* subsp. *cinerea* (Priority 3) individuals.
- The potential introduction and spread of weeds and dieback into adjacent vegetation, which could impact on the quality of the adjacent vegetation and habitat values.
- Impacts to fauna resident during the clearing process and longer term due to the restriction of local movements.
- Potential land degradation in the form of wind erosion.

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 is unlikely to lead to appreciable land degradation. However, impacts to the permanent loss of 0.78 hectares of Bush Forever site 397 (Coastal Strip from Wilbinga to Mindarie), are considered a significant residual impact even after the application of minimisation and mitigation measures.

Consistent with the Western Australian Environmental Offset Policy (2011) and WA Environmental Offsets Guidelines (2014), and pursuant to section 51(2)(b) of the EP Act, to mitigate the significant residual impacts described above, the Permit Holder is required to provide an offset. Applying the required 2:1 ratio for impacts to Bush Forever, a 1.56 hectare offset is necessary. The offset provided involves the rehabilitation and revegetation of 1.71 hectares of Bush Forever site 397 (Coastal Strip from Wilbinga to Mindarie) (City of Wanneroo 2024), which exceeds the offset required.

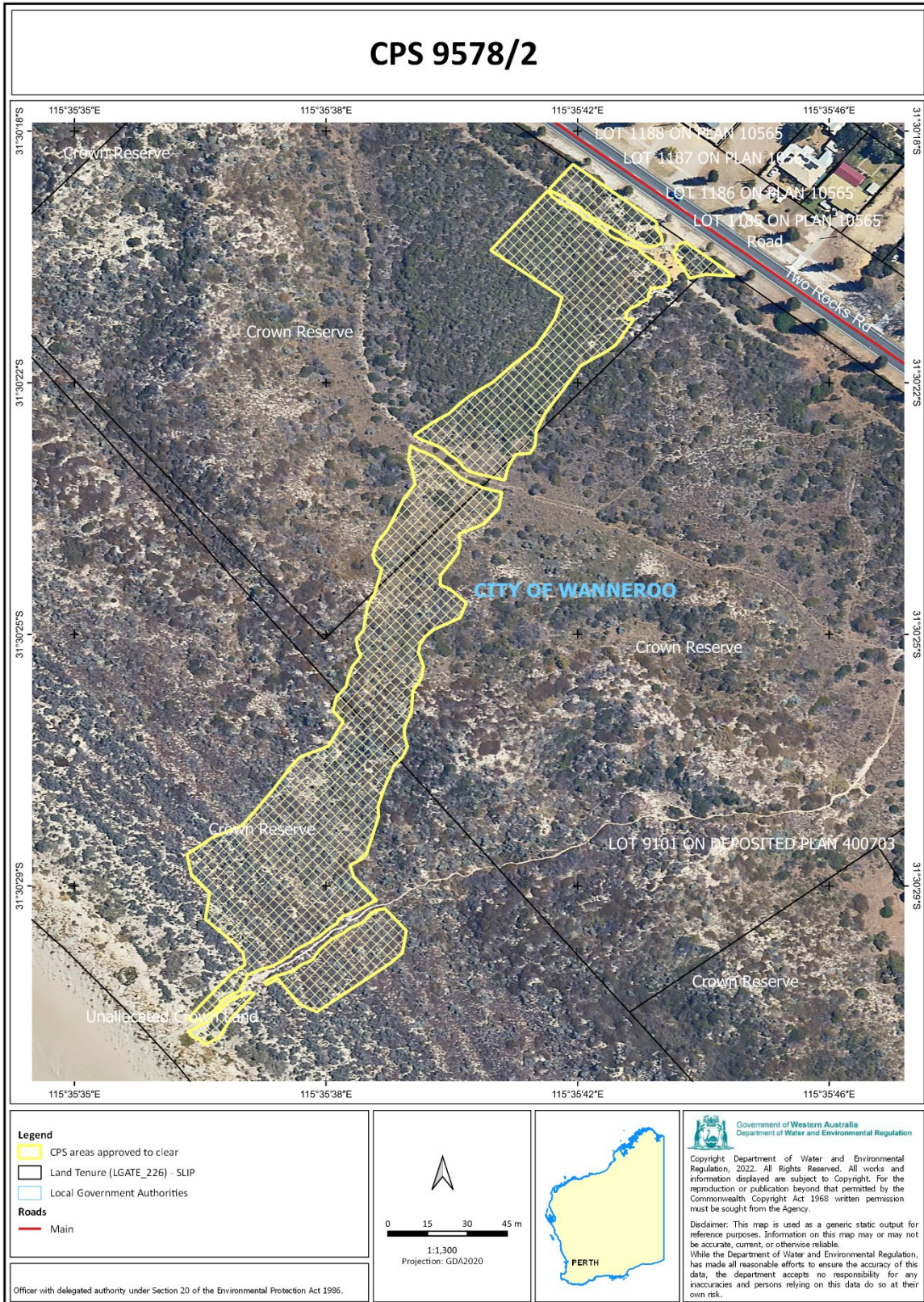
The Delegated Officer decided to grant a clearing permit subject to conditions to:

- Avoid and minimise to reduce the impacts and extent of clearing.
- Take steps to reduce the risk of the introduction and spread of weeds and dieback to minimise impacts to adjacent vegetation.
- Undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity.
- Limit the clearing of conservation significant flora to four *Beyeria cinerea* subsp. *cinerea* individuals.
- Require all priority flora within 30 metres of the application area boundary is identified and demarcated prior to clearing, to avoid unintentional clearing of conservation significant flora.
- Ensure construction commences within two (2) months of the cessation of clearing to minimise the risk of wind erosion or apply dust suppressant to all areas of bare ground within cleared areas.

- Revegetate temporary clearing areas within 12 months of the commencement of clearing to mitigate impacts to Bush Forever area 397, habitat suitable for conservation significant flora, fauna and communities, and ecological connectivity within the coastal landscape.
- Install fencing that restricts public access into the Bush Forever site and limits invasive fauna movement into the rehabilitation area.
- Re-Installation of fencing that restricts public access and allows for fauna movement into the Bush Forever site after rehabilitation has been completed.
- Implement an offset to counterbalance significant residual impacts as described above.



1.5. Site maps



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Figure 1: Map of the application area. The area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit.



# CPS 9578/2



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Figure 2: Map of the application area. The area crosshatched 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 polluter pays principle
- 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:

- *Environmental Offsets Policy* (2011)
- State Planning Policy 2.8: Bushland Policy for the Perth Metropolitan Region (2010) (SPP 2.8)

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)
- *Environmental Offsets Guidelines* (August 2014)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

## 3 Detailed assessment of application

### 3.1. Avoidance and mitigation measures

In addition to the avoidance measures outlined in the Clearing Permit Decision Report CPS 9578/1, the City of Wanneroo proposed the removal of the 15-centimeter fence line that would allow for fauna movement and suggested replacing it with a fence designed to restrict the movement of invasive wildlife into the rehabilitation and revegetation areas. This change aims to promote faster regrowth in the area. Once the completion criteria for the offset have been accomplished, the City will remove the fence designed to restrict the movement of invasive wildlife and install a 15-centimetre fence line that allows for the movement of fauna (City of Wanneroo, 2023a). After reviewing the supporting evidence, the Delegated Officer agrees that this modification will benefit the revegetation efforts and has approved the amendment to the application.

The Delegated Officer was satisfied that the avoidance and mitigation measures provided under CPS 9578/1 and 9578/2 was acceptable and that the applicant had made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

In line with the avoidance and mitigation measure of CPS 9578/1, it was determined that an offset to counterbalance the significant residual impacts to Bush Forever area 397 was necessary. In accordance with the Government of Western Australia's Environmental Offsets Policy and Environmental Offsets Guidelines, these significant residual impacts have been addressed through the conditioning of environmental offset requirements on the permit. The nature and suitability of the offset provided is summarised in Section 4.

### 3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix B) 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 C) identified that the impacts of the proposed clearing present a risk to flora and fauna habitat, vegetation considered significant as a remnant, a conservation area, and land resources. 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. Significant remnant vegetation and conservation areas (conservation areas and remnant vegetation ) - Clearing Principles (e) and (h)**

#### Assessment

##### **Remnant vegetation**

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present prior to the year 1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

The Environmental Protection Authority (EPA) recognises the Perth Metropolitan Region as a constrained area, which provides for the reduction of vegetation complexes to a minimum of 10 per cent of their pre-European extent (EPA 2008). However, Bush Forever is a strategic plan that proposes to protect at least 10 per cent of each of the original 26 vegetation complexes of the Swan Coastal Plain within the Perth Metropolitan Region, with a target of 20 per cent for the Quindalup vegetation complex (Government of Western Australia 2000a).

The application area is located within the Swan Coastal Plain bioregion as described by Thackway and Cresswell (1995). The Swan Coastal Plain (IBRA) bioregion retains approximately 38.6 per cent of its pre-European vegetation extent (Government of Western Australia 2019a). The vegetation within the application area is mapped within the Quindalup vegetation complex (Heddl et al 1980), which retains approximately 60.5 per cent of its pre-European extent (Government of Western Australia 2019b). The approximate native vegetation retained within the local area (ten kilometres radius from the application area) is approximately 74.41 hectares (Appendix B.2; Government of Western Australia 2019a).

As the extent of the mapped vegetation type is consistent with the national objectives and targets for biodiversity conservation in Australia, proposed clearing is not located within an extensively cleared landscape.

##### **Conservation areas**

The application area intersects approximately 1.56 hectares of Bush Forever Area 397 (Coastal Strip from Wilbinga to Mindarie), which is part of a larger 400-hectare area (Government of Western Australia 2020). The vegetation within the application area is also included in the Gngalara Sustainability Strategy (GSS) Ecological Linkages (Brown et al. 2009), associated with the mapped Bush Forever site. According to a vegetation survey by One Tree Botanical (2020), the majority of the vegetation within the application area is in degraded to good to excellent (Keighery 1994) condition. The proposed clearing will directly impact the environmental values of this Bush Forever area through the removal of native vegetation, as well as the potential introduction and spread of weeds and dieback.

The proposed clearing of 1.56 hectares of native vegetation with 0.78 hectares being mapped as bush forever will impact the environmental values of a conservation area (Bush Forever Site 397) and potentially fragment ecological connectivity within the landscape. The proposed clearing activities may result in the introduction or spread of weeds and dieback into adjacent vegetation, which could impact habitat quality and connectivity.

#### Conclusion

For the reasons set out above, it is considered that the clearing is unlikely to impact on any biodiversity conservation targets. However, the proposed clearing will impact Bush Forever area 397 with the removal of approximately 1.56 hectares. 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, slow directional clearing to allow fauna to move into adjacent vegetation, and rehabilitating temporary cleared areas post works to ensure vegetation is not permanently lost. The loss of 0.78 hectares of permanently cleared vegetation constitutes a significant residual impact.

#### Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- A revegetation condition requiring the revegetation of 0.78 hectares of temporary cleared areas.
- Provision of an offset (Section 4) for the significant residual impacts to Bush Forever site 397 that also provides suitable habitat for conservation significant flora, vegetation and fauna.
- A weed and dieback condition to mitigate impacts to adjacent vegetation.

### 3.3. Relevant planning instruments and other matters

The assessment against planning instruments and other relevant matters is unchanged and can be found in the Clearing Permit Decision Report CPS 9578/1 (DWER, 2022).

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

## 4 Suitability of offsets

Through the detailed assessment outlined in Section 3.2 above, the Delegated Officer has determined that the following significant residual impacts remain after the application of the avoidance and mitigation measures summarised in Section 3.1:

- The permanent loss of 0.78 hectares of Bush Forever area 397

Under CPS 9578/1, it was determined that the significant residual impact (SRI) to regionally significant bushland within Bush Forever Site 397 was the permanent loss of 0.65 hectares, noting that 0.78 hectares of temporary clearing would be rehabilitated (see decision report CPS 9578/1). To counterbalance this SRI, the City provided an offset to revegetate at least 1.3 hectares (2:1 ratio) within an area of 1.45 hectares as an offset under the conditions of CPS 9578/1 (see figure 3). The additional 0.175 hectares was banked by the City for potential future clearing related to the UXO search and fence installation.

The amendment under CPS 9578/2 with its additional clearing footprint will result in the permanent loss of 0.78 hectares of regionally significant bushland within Bush Forever area 397, along with the temporary clearing of an additional 0.78 hectares to be rehabilitated. The City proposes an addition to the offset plan under CPS 9578/1. Specifically, the City proposes to revegetate at least 1.56 hectares (a 2:1 ratio) within a 1.715-hectare area (see figure 3). The remaining 0.155 hectares will be banked for future revegetation associated with any potential clearing related to the UXO search.

The proposed offset site is situated within two separate land parcels managed by the City of Wanneroo and zoned for Parks and Recreation under the Metropolitan Region Scheme, including Lot 13321 on Deposited Plan 21931 and Lot 15452 on Deposited Plan 40341, Two Rocks (Figure 3; City of Wanneroo 2022c). The rehabilitation and revegetation of 1.56 hectares of the offset site is primarily located within Bush Forever area 397. The offset site comprises an existing dune blowout and weed infested area, primarily in degraded condition (City of Wanneroo 2022c).

A site assessment verified that the offset site ranged from degraded to good vegetation condition, based on the Southwest Botanical Province (EPA 2016) and Bush Forever (Keighery 1994 from Government of Western Australia 2000) vegetation condition scale (City of Wanneroo 2022c). The use of unauthorised 4WD tracks was evident during the offset site inspection and through review of aerial imagery (City of Wanneroo 2022c). The main contributing factor to the degraded condition of the site is the use of unauthorised vehicles in the area and the increased invasion of weed species on the site (City of Wanneroo 2022c).

The rehabilitation of this site would be a beneficial contribution to the Two Rocks foreshore area to the south of the Marina and assist in remediating the overall continual degradation of this vegetation (City of Wanneroo 2022c). The revegetation of the offset site will positively contribute to the overall ecological value of this site, and the fencing and conservation of this site will further deter and restrict unauthorised vehicles impacting the site (City of Wanneroo 2022c). Restricting fencing will be installed that discourages movement of fauna into the revegetation areas, once revegetation is completed, conservation style fencing will be installed that allows for the movement of fauna by being raised at least 15 centimetres from the ground.

The proposed offset has been developed in accordance with the WA State Government's Environmental Offsets Policy and Environmental Offsets Guidelines and conforms with DPLH advice and SPP 2.8.

The Delegated Officer concluded that the offset provided adequately counterbalances the significant residual impacts identified.

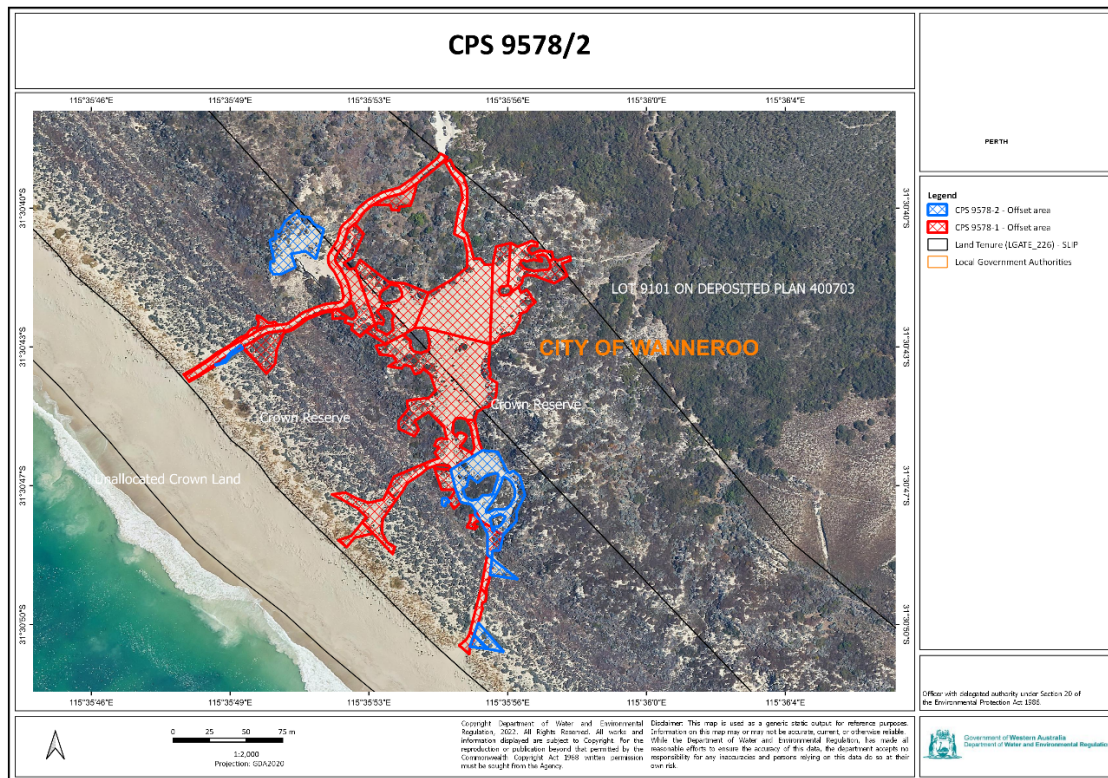


Figure 3. Map of the offset site. The area crosshatched red indicates the area subject to conditions under CPS 9578-1. The area crosshatched blue indicates the area subject to conditions under CPS 9578-2

End

## Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
Concerns were raised regarding the fauna movement fencing. The City expressed concerns that revegetation efforts would be undermined by rabbits entering the area and consuming the newly planted vegetation as had been done in other revegetation efforts conducted by the City.	The applicant's justification for the proposed changing of fauna movement fencing to rabbit proof fencing with a 2023 survey on the Control of Rabbit, Fox, and Feral Cat Populations within the City of Wanneroo Natural Areas. This evidence provided showed that without a rabbit proof fence, revegetation efforts may be unsuccessful (City of Wanneroo, 2023b and 2023c).
The applicant provided additional shapefile changes to accommodate a kangaroo crossing/gate to be installed within the area, the total amount of revegetation reduced was 0.001 hectares	The department took into consideration the small changes to the proposed clearing and altered the designs accordingly (City of Wanneroo, 2023a).

## Appendix B. Site characteristics

### B.1. 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 the department at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

Characteristic	Details
Local context	<p>The area proposed to be cleared is two separate locations that are a part of an expansive tract of native vegetation in the intensive land use zone of Western Australia. It is adjacent to remnant native vegetation that extends south to north along the coastline. The application area is bound by the Indian Ocean to the west and Two Rocks Road to the east.</p> <p>Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 74 per cent of the original native vegetation cover. The application area forms part of a larger UXO area known as 'Yanchep Two Rocks Artillery Range' (City of Wanneroo, 2022b).</p>
Ecological linkage	The application area intersects approximately 1.56 hectares of Bush Forever area 397 (Coastal Strip from Wilbinga to Mindarie). A conceptual linkage of the Gnangara Mound Ecological Linkage is also mapped over the application area.
Conservation areas	The application area occurs within Bush Forever area 397 (Coastal Strip from Wilbinga to Mindarie). Gnangara-Moore River State Forest and Yanchep National Park are located approximately 5.6 kilometres east from the application area.
Vegetation description	<p>A flora and vegetation survey (One Tree Botanical 2020) indicate the vegetation within the proposed clearing area consists of the following seven vegetation types:</p> <ul style="list-style-type: none"> <li>- A1: Incipient Fore dune (younger): Uniform regrowth of Grassland <i>Thinopyrum distichum</i>;</li> <li>- A2: Established Fore dune (older): Sparse Shrubland <i>Olearia axillaris</i> over Grassland <i>Spinifex longifolius</i>.</li> <li>- A3: Beach-ridge Plain: Open Shrubland <i>Olearia axillaris</i>, <i>Rhagodia baccata</i> subsp. <i>baccata</i> and <i>Pelargonium capitatum</i> over Sparse Grassland <i>Spinifex longifolius</i> and Sparse <i>Vineland Cassytha flava</i> var. <i>flava</i>.</li> <li>- B1: Shrubland dominated by <i>Acacia cyclops</i>, <i>Scaevola crassifolia</i>, <i>Spyridium globulosum</i>, <i>Santalum acuminatum</i>, <i>Myoporum insulare</i>, <i>Olearia axillaris</i>, <i>Rhagodia baccata</i> subsp. <i>baccata</i> and <i>Acanthocarpus preissii</i>, Sparse <i>Vineland Hardenbergia comptoniana</i> and <i>Cassytha flava</i> var. <i>flava</i>. Over Forbland dominated by <i>Senecio pinnatifolius</i> var. <i>latilobus</i>.</li> <li>- C1: Species rich low Shrubland dominated by <i>Melaleuca systema</i> and species rich Forbland dominated by <i>Lomandra maritima</i> and Sparse Sedgeland <i>Lepidosperma calcicola</i> and Sparse <i>Rushland Desmodcladus asper</i>.</li> </ul>



Characteristic	Details																								
	<ul style="list-style-type: none"> <li>- D1: Closed Shrubland <i>Melaleuca cardiophylla</i> with other typical shrubs <i>Melaleuca huegelii</i> subsp. <i>huegelii</i>, <i>Acacia xanthina</i> and <i>Dodonaea aptera</i> with Sparse Vineland <i>Cassytha aurea</i> var. <i>aurea</i> over Forbland of native and introduced herbs.</li> <li>- E1: Historically cleared areas; informal walking paths, informal vehicular sand tacks (unused and partially overgrown).</li> </ul> <p>The vegetation types mapped over the application area during the flora and vegetation survey are available in Appendix F.</p> <p>These vegetation types are partially consistent with 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 flora and vegetation survey conducted by One Tree Botanical (2020) identified the vegetation within the proposed clearing area ranged from excellent to degraded (Keighery, 1994) condition with the majority of the vegetation being mapped as very good to excellent (see Figure 4). The full Keighery (1994) condition rating scale is provided in Appendix D.</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.</p>																								
Soil description	<p>The soils mapped over the application area include the following:</p> <table border="1" data-bbox="432 1290 1465 1435"> <tr> <td>Name</td> <td>Quindalup South shallow sand flat Phase</td> </tr> <tr> <td>Soils</td> <td>211Qu_Qs</td> </tr> <tr> <td>Description</td> <td>described as undulating landscapes with shallow calcareous sands over limestone and much rock outcrop.</td> </tr> </table> <table border="1" data-bbox="432 1473 1465 1648"> <tr> <td>Name</td> <td>Quindalup South third dune Phase</td> </tr> <tr> <td>Soils</td> <td>211Qu_Q3</td> </tr> <tr> <td>Description</td> <td>described as the third phase. Irregular dunes with high relief and slopes up to 20%. Loose calcareous sand with little surface organic staining and incipient cementation at depth</td> </tr> </table> <table border="1" data-bbox="432 1686 1465 1832"> <tr> <td>Name</td> <td>Quindalup South youngest dune Phase</td> </tr> <tr> <td>Soils</td> <td>211Qu_Q4</td> </tr> <tr> <td>Description</td> <td>described as the youngest phase. Irregular dunes with slopes up to 20%. Loose pale brown calcareous sand with no soil profile development.</td> </tr> </table> <table border="1" data-bbox="432 1870 1465 1993"> <tr> <td>Name</td> <td>Quindalup South unstable sand Phase</td> </tr> <tr> <td>Soils</td> <td>211Qu__Qu</td> </tr> <tr> <td>Description</td> <td>Presently unstable sand.</td> </tr> </table>	Name	Quindalup South shallow sand flat Phase	Soils	211Qu_Qs	Description	described as undulating landscapes with shallow calcareous sands over limestone and much rock outcrop.	Name	Quindalup South third dune Phase	Soils	211Qu_Q3	Description	described as the third phase. Irregular dunes with high relief and slopes up to 20%. Loose calcareous sand with little surface organic staining and incipient cementation at depth	Name	Quindalup South youngest dune Phase	Soils	211Qu_Q4	Description	described as the youngest phase. Irregular dunes with slopes up to 20%. Loose pale brown calcareous sand with no soil profile development.	Name	Quindalup South unstable sand Phase	Soils	211Qu__Qu	Description	Presently unstable sand.
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Soils	211Qu__Qu																								
Description	Presently unstable sand.																								

Characteristic	Details					
	Name	Quindalup South water, beach Phase				
	Soils	211QuU_Beach				
	Description	described as beach.				
Land degradation risk	The degradation risk factors mapped over the application area are detailed below:					
		211Qu_Qs	211Qu_Q3	211Qu_Q4	211QuU_Beach	211Qu_Qu
	Wind erosion	M2	H1	H2	H2	H2
	Water erosion	H1	M1	M2	L1	H2
	Salinity risk	L1	L1	L1	L1	L1
	Phosphorous export	H1	M2	M2	H2	H2
	Waterlogging	L1	L1	L2	L1	L1
	Subsurface acidification	L1	L1	L1	L1	L1
	Flooding	L1	L1	L1	L1	L1
	<b>Key</b>					
	L1	Low	<3%	of the map has a high to extreme risk		
	L2	Low	3-10%	of the map has a high to extreme risk		
	M1	Medium	10-30%	of the map has a high to extreme risk		
	M2	Medium	30-50%	of the map has a high to extreme risk		
	H1	High	50-70%	of the map has a high to extreme risk		
	H2	High	>70%	of the map has a high to extreme risk		
Waterbodies	No watercourse or wetlands are mapped within proximity to the application area. The nearest mapped wetland is a conservation category wetland located approximately 6.6 kilometres east from the application area. The Indian Ocean is located directly west from the application area.					
Hydrogeography	The application area is mapped within Yanchep Groundwater Area proclaimed under the Rights in Water and Irrigation Act 1914					
	The salinity of the application area is mapped at 500-1000 total dissolved solids milligrams per litre.					
Flora	According to available databases, 19 flora of conservation significance have been recorded within the local area, comprising one Threatened, one Priority 1, Four Priority 2, ten Priority 3 and three Priority 4 flora taxa.					
	A flora and vegetation survey undertaken identified four individuals of <i>Beyeria cinerea</i> subsp. <i>cinerea</i> (Priority 3) within the application area (One Tree Botanical 2020). Other records of this species, and two other priority taxa were recorded within close proximity to the application area, including <i>Leucopogon maritimus</i> (Priority 1) and <i>Styidium maritimum</i> (Priority 3) (One Tree Botanical 2020).					
Ecological communities	According to available databases, four conservation significant ecological communities have been mapped within the local area. None of these records occur over the application area. A flora and vegetation survey undertaken within the application area identified two PECs within the application area including Coastal shrublands on shallow sands, southern Swan Coastal Plain ('floristic community type 29a') (Priority 3) and Northern Spearwood shrublands and woodlands ('floristic community type 24') (Priority 3).					
Fauna	According to available databases, 25 conservation significant fauna species have been recorded within the local area comprising of 12 Threatened, one Priority 1, one Priority 2, three Priority 3, three Priority 4, three specially protected Migratory species and one other specially protected species (OS) and one specially protected species (conservation dependent; CD), fauna taxa. None of these records occur over the application area.					



Characteristic	Details
	<p>Of these, 13 fauna are associated with marine, estuarine or freshwater habitats that do not occur within the application area.</p> <p>The nearest records are <i>Isoodon fusciventer</i> (quenda; Priority 4) and <i>Zanda latirostris</i> (Carnaby's cockatoo; endangered) located approximately 0.9 kilometres and 0.74 kilometres from the application area, respectively. The nearest confirmed black cockatoo roost site is located approximately 0.6 kilometres from the application area.</p> <p>A vertebrate fauna survey conducted within the application area identified that the vegetation within the application area may provide suitable habitat for quenda and Neelaps calonotos (black striped snake; Priority 3) (Terrestrial Ecosystems 2020).</p>

## B.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	16,249.84	12,091.18	74.41	-	-

\*Government of Western Australia (2019a)

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

## B.3. Flora analysis table

Species name	Conservation status	Suitable soil & vegetation types	Number of known records in local area (total)	Are surveys adequate to identify?
<i>Conostylis pauciflora</i> subsp. <i>euryrhipis</i>	P4	Y	10	Y
<i>Leucopogon maritimus</i>	P1	Y	15	N
<i>Stylidium maritimum</i>	P3	Y	10	Y
<i>Acacia benthamii</i>	P2	N	5	Y
<i>Calandrinia oraria</i>	P3	N	1	Y
<i>Conostylis bracteata</i>	P3	N	1	Y
<i>Eucalyptus argutifolia</i>	Vu	N	6	Y
<i>Hibbertia leptotheca</i>	P3	N	3	Y
<i>Lasiopetalum membranaceum</i>	P3	N	1	Y

<i>Lecania sylvestris</i>	P2	N	1	Y
<i>Lecania turicensis</i> var. <i>turicensis</i>	P2	N	1	Y
<i>Lepidium pseudotasmanicum</i>	P4	N	3	Y
<i>Leucopogon</i> sp. Yanchep (M. Hislop 1986)	P3	N	13	Y
<i>Pimelea calcicola</i>	P3	N	4	Y
<i>Placynthium nigrum</i>	P3	N	1	Y
<i>Rinodina bischoffii</i>	P2	N	1	Y
<i>Sphaerolobium calcicola</i>	P3	N	2	Y
<i>Styphelia filifolia</i>	P3	N	1	Y
<i>Eucalyptus foecunda</i> subsp. <i>foecunda</i>	P4	N	1	Y

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

#### B.4. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<b>Birds</b>					
<i>Zanda latirostris</i> (Carnaby's Black-Cockatoo)	EN	Y	0.7	343	Y
<i>Tyto novaehollandiae novaehollandiae</i> (masked owl (southwest))	P3	Y	9.6	1	Y
<b>Mammals</b>					
<i>Dasyurus geoffroyi</i> (chuditch)	Vu	Y	9.6	2	Y
<i>Isoodon fusciventer</i> (quenda)	P4	Y	0.9	8	Y
<b>Insects</b>					
<i>Austroconops mcmillani</i> (McMillan's biting midge (Swan Coastal Plain))	P2	Y	8.9	8	N
<i>Idiosoma sigillatum</i> (Swan Coastal Plain shield-backed trapdoor spider)	P3	Y	9.6	1	N
<i>Synemon gratiosa</i> (graceful sunmoth)	P4	Y	5.0	83	N
<b>Reptiles</b>					
<i>Delma concinna major</i> (javelin legless lizard (Shark Bay))	P1	Y	9.7	1	Y
<i>Neelaps calonotos</i> (black-striped snake)	P3	Y	5.0	4	Y

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

**B.5. Ecological community analysis table**

Community name	Conservation status	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Melaleuca huegelii</i> - <i>Melaleuca systema</i> shrublands on limestone ridges (floristic community type 26a as originally described in Gibson et al. (1994))	En	7.0	11	Y
Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	P3	3.4	191	Y
Tuart ( <i>Eucalyptus gomphocephala</i> ) woodlands and forests of the Swan Coastal Plain	P3	6.8	63	Y
Aquatic Root Mat Community Number 1 of Caves of the Swan Coastal Plain	CR	9.6	4	Y

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

**Appendix C. Assessment against the clearing principles**

Assessment against the clearing principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> “Native vegetation should not be cleared if it comprises a high level of biodiversity.”</p> <p><u>Assessment:</u> A flora and vegetation survey identified four individuals of <i>Beyeria cinerea</i> subsp. <i>cinerea</i> (Priority 3) within the application area (One Tree Botanical, 2020). <i>Leucopogon maritimus</i> (Priority 1) and <i>Stylidium maritimum</i> (Priority 3) were recorded within close proximity to the application area (One Tree Botanical 2020). ‘Coastal shrublands on shallow sands, southern Swan Coastal Plain’ (floristic community type 29a; Priority 3) and ‘Northern Spearwood shrublands and woodlands’ (floristic community type 24; Priority 3) PECs were recorded within the application area (One Tree Botanical 2020).</p> <p>The additional area proposed to be cleared does not contain any additional occurrences of priority flora or PECs to that already addressed under CPS 9578/1.</p>	May be at variance	No  Refer to CPS 9578/1
<p><u>Principle (b):</u> “Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.”</p> <p><u>Assessment:</u> The vegetation within the application area may provide suitable habitat for conservation significant fauna, including <i>Isoodon fusciventer</i> (quenda; Priority 4), <i>Neelaps calonotos</i> (black-striped snake; Priority 3) and <i>Synemon gratiosa</i> (graceful sunmoth; Priority 4).</p> <p>The additional area proposed to be cleared does not change the assessment from that already addressed under CPS 9578/1.</p>	Not likely to be at variance	No  Refer to CPS 9578/1
<p><u>Principle (c):</u> “Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</p> <p><u>Assessment:</u> One Threatened flora taxa, <i>Eucalyptus argutifolia</i> (vulnerable), was recorded from six records within the local area. None of these records occur over the application area. The records of this species are from different mapped soil and vegetation types to those found within the application area. The flora and vegetation survey did not record any threatened flora within the application area (One Tree Botanical 2020). The vegetation within the application is not likely to include or be necessary for the continued existence of threatened flora (One Tree Botanical 2020).</p> <p>The additional area proposed to be cleared does not include habitat or be necessary for the continued existence of threatened flora.</p>	Not likely to be at variance	No  Refer to CPS 9578/1
<p><u>Principle (d):</u> “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.”</p> <p><u>Assessment:</u> The area proposed to be cleared does not contain species that can indicate a threatened ecological community (TEC), The additional area proposed to be cleared does not contain any species that can indicate a TEC. The flora and vegetation survey did not record any TECs within the application area (One Tree Botanical 2020). The vegetation within the application area is not likely to comprise the whole or a part of, or be necessary for the maintenance of, a TEC.</p>	Not likely to be at variance	No  Refer to CPS 9578/1
<b>Environmental value: significant remnant vegetation and conservation areas</b>		



Assessment against the clearing principles	Variance level	Is further consideration required?
<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> The extent of the mapped vegetation type is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to significantly impact the ecological linkage mapped in the application area.</p>	<p>Not at variance</p> <p>Changed from CPS 9578/1</p>	<p>Yes</p> <p>Refer to Section 3.2.1, above.</p>
<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> The application area occurs within Bush Forever area 397 (Coastal Strip from Wilbinga to Mindarie). The clearing will impact this conservation area through the direct clearing of native vegetation. There is potential that the proposed clearing activities could result in the introduction or spread of weeds and dieback into adjacent vegetation, which could impact habitat quality and connectivity.</p> <p>The additional area proposed to be cleared does include vegetation that occurs within Bush Forever area 397.</p>	<p>At variance</p>	<p>Yes</p> <p>Refer to Section 3.2.1, above.</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 watercourses or wetlands are mapped within close proximity of the application area, the vegetation proposed to be cleared is not likely growing in or in association with a wetland or watercourse.</p>	<p>Not likely to be at variance</p>	<p>No</p>
<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> The mapped soils are susceptible to wind erosion. The clearing of 1.56 hectares of native vegetation may cause land degradation in the form of wind erosion. Noting the extent and purpose of the clearing proposed, the location within the broader remnant, the revegetation proposed for temporary cleared areas following the construction of the beach access track, the proposed clearing is unlikely to cause appreciable land degradation in the long term. An erosion management condition has been placed on the permit.</p>	<p>May be at variance</p>	<p>Yes</p> <p>Refer to Section 3.2.2, above.</p>
<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> Given no watercourses or wetlands are recorded within close proximity of the application area, the proposed clearing is unlikely to impact surface water quality. Given the low salinity level and extent of native vegetation in the local area, the proposed clearing is not likely to increase groundwater salinity or cause deterioration in the quality of groundwater.</p>	<p>Not likely to be at variance</p>	<p>No</p>
<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> 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 un-mapped sandy soil associated with the dune is also likely to have a low flood risk.</p>	<p>Not likely to be at variance</p>	<p>No</p>

## Appendix D. Vegetation condition rating scale

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

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 E. Biological survey information excerpts and photographs of the vegetation

The Flora and Vegetation survey from One Tree Botanical and Vertebrate fauna survey from terrestrial Ecosystems 2020, are unchanged and can be found in the Clearing Permit Decision Report CPS 9578/2 (DWER, 2022).

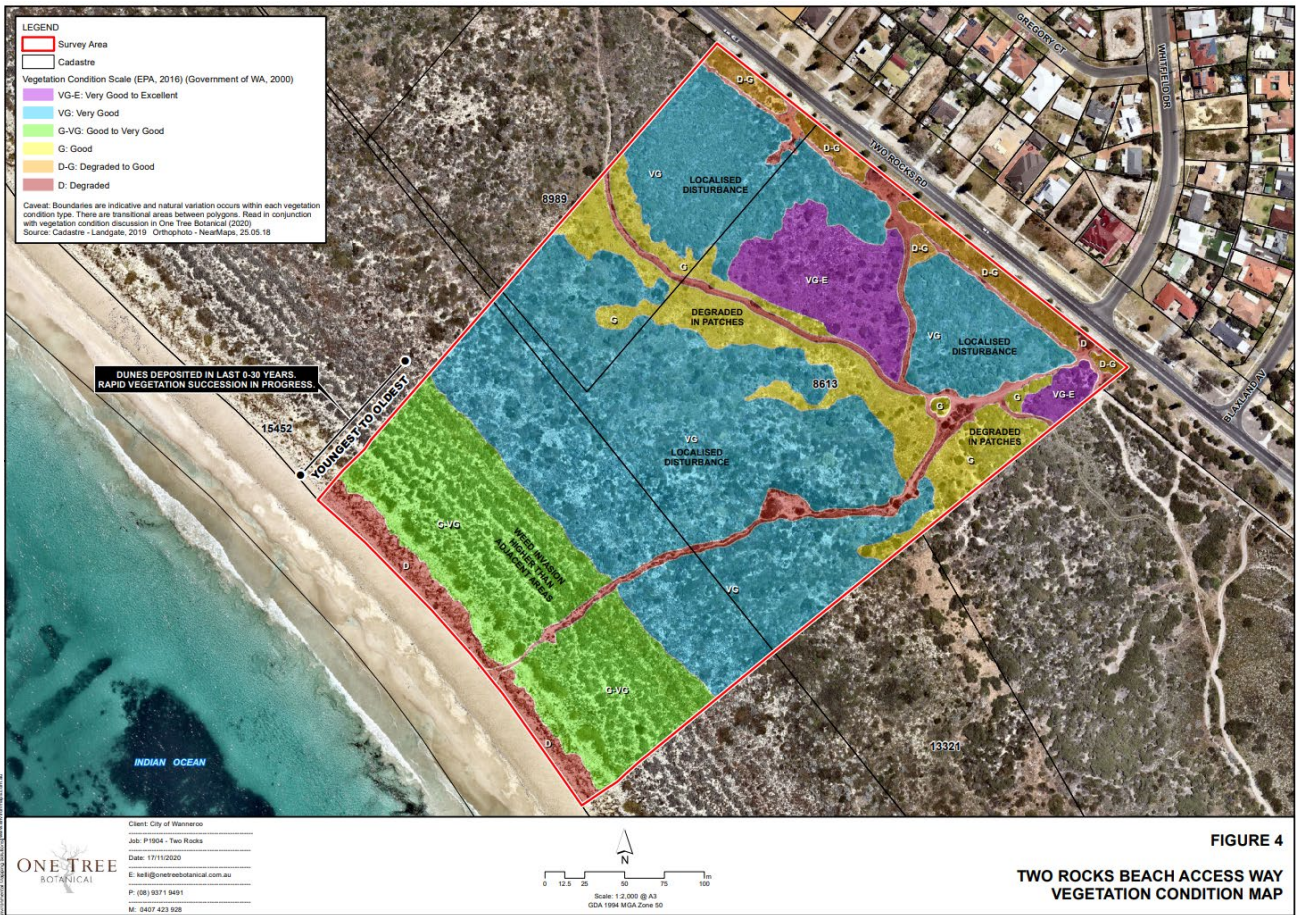


Figure 4. Map of the broader application area with the vegetation quality mapped (One tree botanical 2020).

The following are photos of the for the additional 0.12 hectares of clearing related to the installation of a conservation fence (see figure 2).





Figure 5: Representative photographs of low lying primary dunes on unconsolidated sand within the new area proposed to be cleared. Dominated by *\*Thinopyrum distichum*.



Figure 6: Representative photographs of low lying primary dunes on unconsolidated sand within the new area proposed to be cleared. With *\*Thinopyrum distichum*, *Olearia axillaris* and some weed coverage





Figure 7: Representative photographs of low lying primary dunes on unconsolidated sand within the new area proposed to be cleared. With \*Thinopyrum distichum, Olearia axillaris and some weed coverage

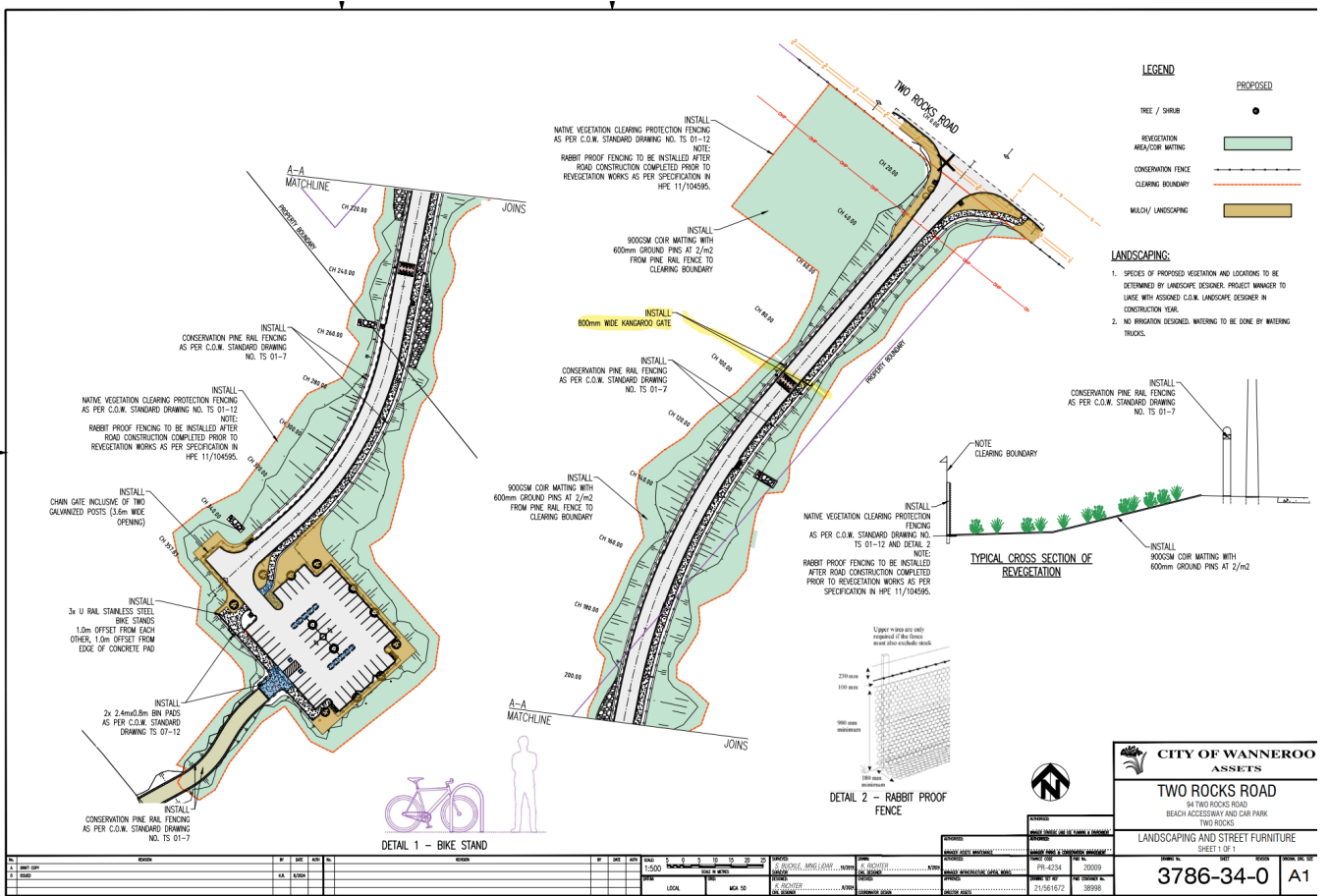


Figure 8. City of Wanneroo's design plans for the two rocks road kangaroo fence location.

## Appendix F. Sources of information

### F.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)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

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

### F.2. References

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- City of Wanneroo (2022a) Clearing permit application CPS 9578/1, received 31 January 2022 (DWER Ref: DWERDT556337).
- City of Wanneroo (2020b) Two Rocks Beach Access Road – Native Vegetation Clearing Permit Application Supporting Documentation, received 31 January 2022 (DWER Ref: DWERDT565253).
- City of Wanneroo (2022c) PR-4234 Two Rocks Beach Access – Rehabilitation and Revegetation Plan CPS 9578/1 May 2022. Prepared by the City of Wanneroo (DWER Ref: DWERDT667926).
- City of Wanneroo (2022d) Supporting information for clearing permit application CPS 9578/1 – shapefiles of offset site, received 6 October 2022 (DWER Ref: DWERDT667995).
- City of Wanneroo (2023a) Clearing permit application CPS 9578/2, received 19 October 2023 (DWER Ref: DWERDT852599 and DWERDT1080127).
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