



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 10477/1
Permit Holder:	City of Wanneroo
Duration of Permit:	From 20 June 2024 to 20 June 2034

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 upgrading beach access structures.

2. Land on which clearing is to be done

Lot 15450 on Deposited Plan 40341, Jindalee

3. Clearing authorised

The permit holder must not clear more than 0.0776 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 and 2 of Schedule 1.

4. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 20 June 2029.

PART II – MANAGEMENT CONDITIONS

5. 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.

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 and;
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

7. Revegetation and rehabilitation (temporary works)

The permit holder must:

- (a) where applicable, retain the vegetative material and topsoil removed by clearing authorised under this permit and stockpile the vegetative material and topsoil in an area that has already been cleared;
- (b) as soon as is practicable, where adequate topsoil is present for revegetation to be planted, and at an *optimal time* following clearing authorised under this permit, *revegetate* and *rehabilitate* the areas that are no longer required for the purpose of clearing by:
 - (i) re-shaping the surface of the land so that it is consistent with the surrounding five metres land;
 - (ii) laying the vegetative material and topsoil retained under condition 7(a) on the clearing areas;
 - (iii) undertake ongoing *weed* control over the *revegetated* and *rehabilitated* areas.
- (c) within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 7(b) of this permit, the permit holder must:
 - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
 - (ii) engage an *environmental specialist* to make a determination as to whether the composition, structure and density determined under condition 7(c)(i) of this permit will, without further *revegetation/rehabilitation*, result in a similar species composition, structure and density of that of pre-clearing vegetation types in that area.
- (d) if the determination made by the *environmental specialist* under condition 7(c)(ii) is that the species composition, structure, and density determined under condition 7(c)(i) will not, without further *revegetation*, result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the permit holder must *revegetate* the area by deliberately *planting local provenance* propagating material and/or *direct seeding* of *local provenance* seeds that will result in a similar species composition, structure, and density of native vegetation to pre-clearing vegetation types in that area.
- (e) where additional *planting* or *direct seeding* of *native vegetation* is undertaken in accordance with condition 7(d), the permit holder must repeat the activities required by condition 7(c) and 7(d) within two years of undertaking the additional *planting* or *direct seeding* of *local provenance native vegetation*.

- (f) Where a determination is made by an *environmental specialist* under condition 7(c)(ii) that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the determination shall be submitted to the CEO within three months of the determination being made by the *environmental specialist*.

PART III - RECORD KEEPING AND REPORTING

8. Records that must be kept

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

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	<ul style="list-style-type: none"> (a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 5; and (f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 6.
2.	In relation to the <i>revegetation</i> and <i>rehabilitation</i> of areas pursuant to condition 7	<ul style="list-style-type: none"> (a) size of the area(s) <i>revegetated</i> and <i>rehabilitated</i>; (b) the date(s) on which the area(s) <i>revegetation</i> and <i>rehabilitation</i> was undertaken; (c) details of the <i>revegetation</i> and <i>rehabilitation</i> activities undertaken; (d) the boundaries of the area(s) <i>revegetation</i> and <i>rehabilitation</i>, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020). Expressing the geographical coordinates in Easting and Northing; (e) any remedial actions required to be undertaken; (f) the date the <i>environmental specialist</i> determined the <i>revegetation</i>/

No.	Relevant matter	Specifications
		<p><i>rehabilitation</i> would result in a similar species composition, structure and density to that of re-clearing vegetation types in that area; and</p> <p>(g) a copy of the <i>environmental specialist's</i> report.</p>

9. Reporting

The permit holder must provide to the *CEO* the records required under condition 8 of this permit when requested by the *CEO*.

DEFINITIONS

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

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
direct seeding	means a method of re-establishing vegetation through establishment of a seed bed and the introduction of seeds of the desired plant species
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.
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent, and has 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 <i>CEO</i> as a suitable environmental specialist.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
fill	means material used to increase the ground level, or to fill a depression.
local provenance	means native vegetation seeds and propagating material from natural sources within 100 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared.
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.
optimal time	means the period from May to August for undertaking direct seeding and planting.

Term	Definition
planting	means the re-establishment of vegetation by creating soil conditions and planting seedlings of the desired species
rehabilitate/ed/ion	means actively managing an area containing native vegetation in order to improve the ecological function of that area.
revegetate/ed/ion	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.
weeds	means any plant – (a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS


Ryan Mincham
 MANAGER
 NATIVE VEGETATION REGULATION

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

28 May 2024

Schedule 1

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

CPS 10477/1 - Map A



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

CPS 10477/1 - Map B

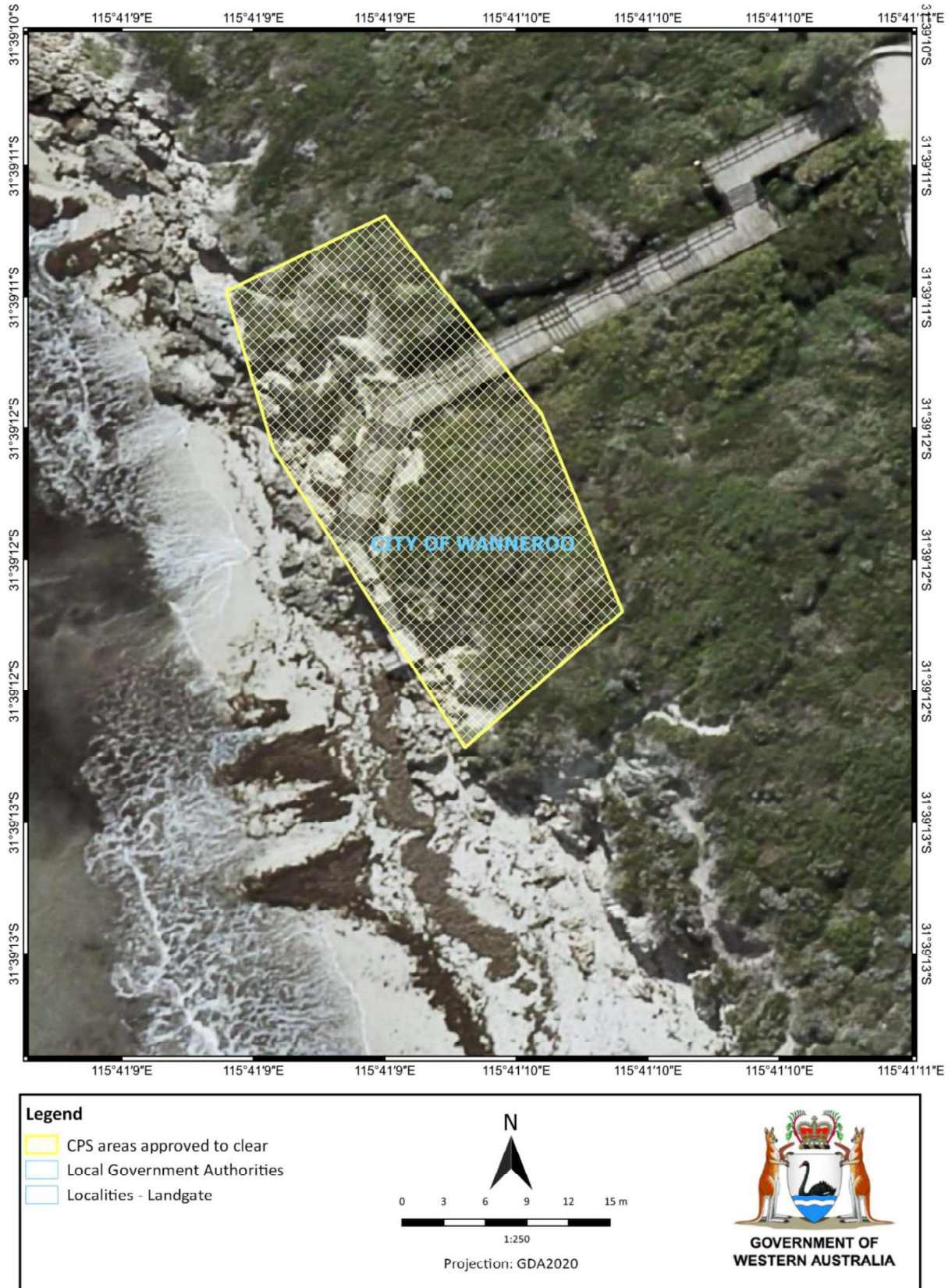


Figure 2: Map of the boundary of the area within which clearing may occur



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10477/1
Permit type:	Purpose permit
Applicant name:	City of Wanneroo
Application received:	10 January 2024
Application area:	0.0776 hectares of native vegetation
Purpose of clearing:	Upgrading beach access structures
Method of clearing:	Mechanical
Property:	Lot 15450 on Deposited Plan 40341
Location (LGA area/s):	City of Wanneroo
Localities (suburb/s):	Jindalee

1.2. Description of clearing activities

The City of Wanneroo (the City) propose to clear approximately 0.0776 hectares of native vegetation within Lot 15450 on Deposited Plan 40341, Jindalee, to facilitate the upgrading of beach access structures (see Figure 1, Section 1.5).

1.3. Decision on application

Decision:	Granted
Decision date:	28 May 2024
Decision area:	0.0776 hectares , 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 A), relevant datasets (see Appendix E.2), the 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:

- the loss of 0.0776 hectares of native vegetation within 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.

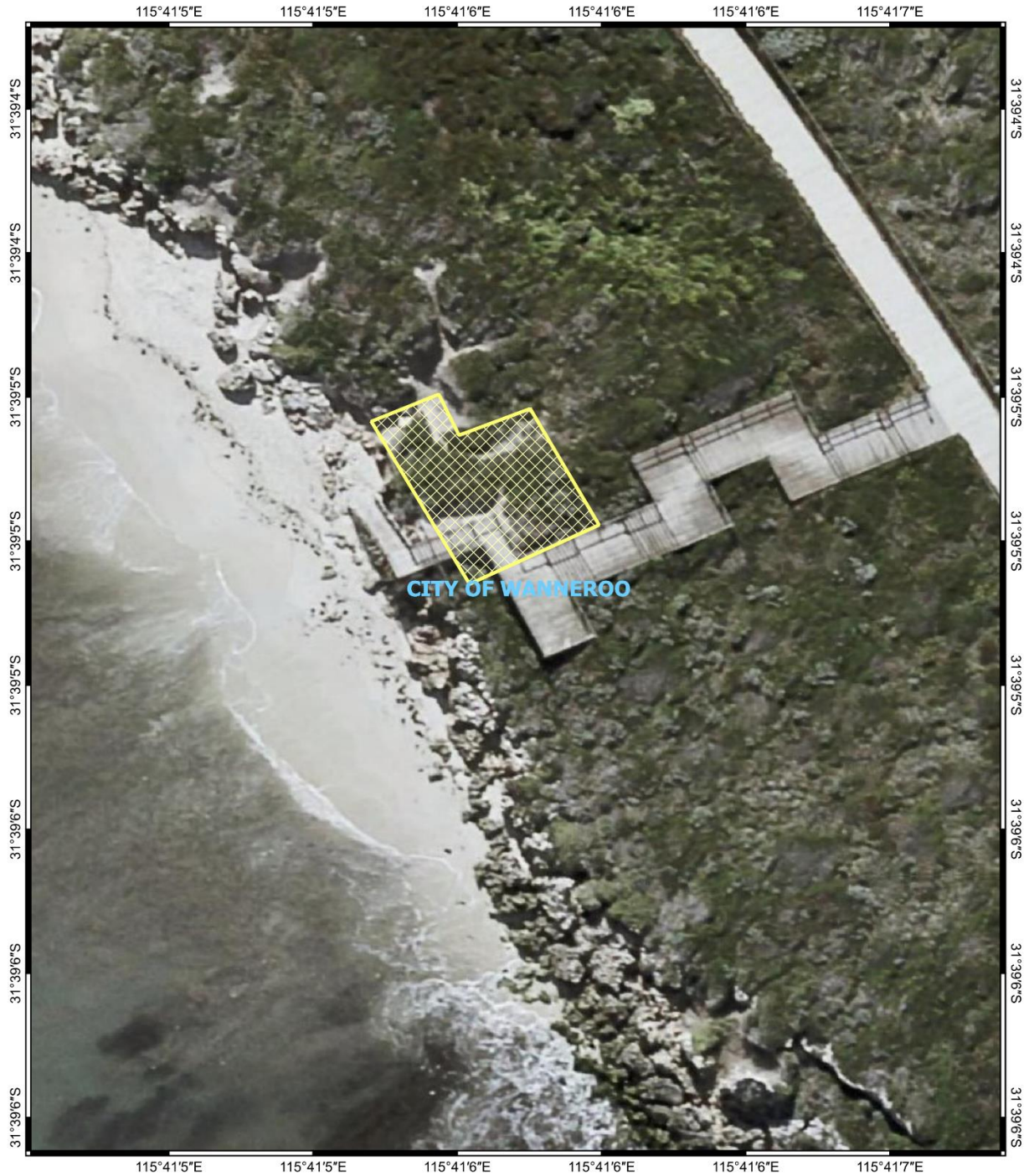
1.5. Site maps

CPS 10477/1 - Context Map



Figure 1: Context map of the application area. The area cross-hatched yellow indicates the area authorised to be cleared under the granted clearing permit.

CPS 10477/1 - Map A



Legend

- CPS areas approved to clear
- Local Government Authorities
- Localities - Landgate

0 3 6 9 12 15 m
1:250
Projection: GDA2020

GOVERNMENT OF WESTERN AUSTRALIA

Figure 2: Map of the application area. The area cross-hatched yellow indicates the area authorised to be cleared under the granted clearing permit.

CPS 10477/1 - Map B



Legend

- CPS areas approved to clear
- Local Government Authorities
- Localities - Landgate

0 3 6 9 12 15 m
1:250
Projection: GDA2020

GOVERNMENT OF WESTERN AUSTRALIA

Figure 3: Map of the application area the area cross-hatched yellow indicates the area authorised to be cleared under the granted clearing permit.

2 Legislative context

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

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Soil and Land Conservation Act 1945* (WA)

Relevant policies of relevance for this assessment include:

- State Planning Policy (SPP) 2.8 – Bushland policy for the Perth Metropolitan Region

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 both Central and Sothern areas was submitted by the City advising the following avoidance and mitigation measures (City of Wanneroo, 2024a):

- The City has advised that the proposed clearing is to renew the stairs for both sections of the beach access way and that much of the clearing will be temporary in nature only.
- The City notes that they will implement a Construction Management Plan (CMP) which among other things will implement site hygiene and dust suppressants while undertaking the proposed clearing.
- The City will survey and clearly delineate the proposed clearing area with boundary fencing and/or flagging to ensure that during demolition and construction activities, no unauthorised clearing occurs in the surrounding Jindalee coastal foreshore reserve, and that vegetation outside the approved clearing area is not adversely affected.
- The City advised that the Jindalee foreshore reserve dune areas that are temporarily disturbed due to demolition and construction works will be stabilised and revegetated following the completion of construction activities. Noting that the area is a rocky coastline, revegetation works may not be able to occur in all temporarily disturbed areas due to insufficient depth, or lack of soil material. Revegetation activities will occur during suitable seasons in line with industry best practice and may be staged over multiple years pending construction completion timeframes.

The Delegated Officer was satisfied that the applicant has undertaken reasonable measures 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 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 B) identified that the impacts of the proposed clearing present a risk to a conservation area. The consideration of this impact, 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 Principle (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 (Central: 0.0117 hectares, South: 0.0659 hectares), that are predominantly in a Good (Keighery, 1994) condition, 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. In addition, the proposed works are largely temporary in nature, with the majority of the proposed clearing area revegetated at the next optimal time.

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 and conditioning the applicant to revegetate temporarily cleared areas. The temporary loss of 0.0776 hectares of vegetation within Bush Forever area 397 does not constitute a significant residual impact.

Conditions

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

- Implement weed and dieback management measures to mitigate impacts to adjacent vegetation.
- Revegetate temporarily cleared areas.

3.3. Relevant planning instruments and other matters

The application area 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.

The City has advised that the proposed clearing is predominantly to renew the beach access way only and has stated in their mitigation strategies that they are able to revegetate much of the area post-clearing. There is expected to be minimal net loss to Bush Forever area 397 due to the clearing being temporary in nature. The Delegated Officer determined that due to the small size of the application area (0.0776 hectares), that the vegetation is predominantly in a Good (Keighery, 1994) condition, that the City propose to revegetate the area after clearing and the clearing is consistent with the overall purpose of Bush Forever area 397, the clearing proposed is not likely to have a significant impact upon this conservation area and an offset is not required in this instance.

On 19 April 2024, the Department forwarded a draft clearing permit to the City for review. In response to the proposed permit conditions, the City expressed concerns regarding the feasibility of fulfilling the requirements outlined in condition 7 - revegetation and rehabilitation of temporary works. The City advised that due to the presence vegetation growing in minimal topsoil on top of limestone outcrops (see Appendix D, figure 18), these areas may be difficult to revegetate as per the requirements.

Based on the site photos supplied by the City, the Department concurs with the concerns raised and has modified the wording within Condition 7 to only require revegetation and rehabilitation of cleared areas where adequate topsoil is present to ensure successful revegetation. Several Aboriginal sites of significance have been mapped within close proximity of 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.

End

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
<ul style="list-style-type: none"> • The applicant provided additional information on the geotechnical assessment of the Jindalee beach access stairs. Providing technical drawings, structural photos and site photos of the current beach assesses ways and area. • The City had concerns with the possible revegetation of some areas where minimal soils are innately present that would make revegetation impossible (see Figure 18). • Furthermore, with much of the vegetation being on limestone rock, Condition 7 (b) (ripping the ground on the contour to remove soil compaction) would be hazardous (City of Wanneroo (2024b). 	<ul style="list-style-type: none"> • The photos supplied by the applicant provided reasonable justification for the rewording of condition 7 - Revegetation and rehabilitation (temporary works). • Condition 7(b)(ii) has been removed entirely.

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 B.

Characteristic	Details										
Local context	<p>The area proposed to be cleared is 0.0776 hectares 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.</p> <p>Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 46.39 per cent of the original native vegetation cover.</p>										
Ecological linkage	The application area intersects approximately 0.0776 hectares of Bush Forever area 397 (Coastal Strip from Wilbinga to Mindarie). A conceptual linkage of the Gngangara Mound Ecological Linkage is also mapped over the application area. The proposed clearing is not going to sever this linkage.										
Conservation areas	The application area occurs within Bush Forever area 397 (Coastal Strip from Wilbinga to Mindarie). The application area occurs within a recreational reserve (5389).										
Vegetation description	<p>A site inspection and photographs supplied by the applicant indicate the vegetation within the proposed clearing areas consist of:</p> <table border="1"> <thead> <tr> <th>Survey vegetation area</th> <th>Vegetation Description</th> </tr> </thead> <tbody> <tr> <td>Central Area (City of Wanneroo, 2023b)</td> <td>Coastal dune vegetation dominated by <i>Olearia axillaris</i>, and <i>Scaevola crassifolia</i>. The area has low weed cover (predominantly in bare areas) with the dominant weed species being *<i>Pelargonium capitatum</i> and *<i>Tetragonia decumbens</i> (Sea Spinach).</td> </tr> <tr> <td>South Area (City of Wanneroo, 2023a)</td> <td>Coastal dune vegetation dominated by <i>Acacia rostellifera</i>, <i>Olearia axillaris</i>, and <i>Scaevola crassifolia</i>. The area has low weed cover (predominantly in bare areas) with the dominant weed species being *<i>Pelargonium capitatum</i> and *<i>Tetragonia decumbens</i> (Sea Spinach).</td> </tr> </tbody> </table> <p>This is broadly consistent with the mapped vegetation complex:</p> <table border="1"> <thead> <tr> <th>Mapped vegetation</th> <th>Vegetation description</th> </tr> </thead> <tbody> <tr> <td>Quindalup Complex</td> <td>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 <i>Geographe Bay</i> (Government of Western Australia 2017).</td> </tr> </tbody> </table> <p>The mapped vegetation type retains approximately 60.49 per cent of the original extent (Government of Western Australia, 2019).</p>	Survey vegetation area	Vegetation Description	Central Area (City of Wanneroo, 2023b)	Coastal dune vegetation dominated by <i>Olearia axillaris</i> , and <i>Scaevola crassifolia</i> . The area has low weed cover (predominantly in bare areas) with the dominant weed species being * <i>Pelargonium capitatum</i> and * <i>Tetragonia decumbens</i> (Sea Spinach).	South Area (City of Wanneroo, 2023a)	Coastal dune vegetation dominated by <i>Acacia rostellifera</i> , <i>Olearia axillaris</i> , and <i>Scaevola crassifolia</i> . The area has low weed cover (predominantly in bare areas) with the dominant weed species being * <i>Pelargonium capitatum</i> and * <i>Tetragonia decumbens</i> (Sea Spinach).	Mapped vegetation	Vegetation description	Quindalup Complex	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 <i>Geographe Bay</i> (Government of Western Australia 2017).
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Vegetation condition	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in Good (Keighery, 1994) condition. The full Keighery (1994) condition rating scale is provided in Appendix D. Representative photos are available in Appendix E.										
Climate and landform	The climate experienced in the application area is Mediterranean, characterised by hot and dry summers and cool and wet winters. According to the Bureau of Meteorology (2023), the proposed clearing area has an average annual rainfall of 607.8 millimetres.										

Characteristic	Details		
	<p>The data was gathered from the closest open Metalogical site (ID 009264) located approximately 5.60 kilometres northeast of the application.</p> <p>The elevation of the application area rises precipitously in some areas as it is on a cliff face; however, most of the area's elevation is level, going from 5 metres Isohyet west of the application area to 10 metres Isohyet to the east of the application area.</p>		
Soil description	Name	Quindalup South second dune Phase	
	Soils	211Qu_Q2	
	Description	The second phase. A complex pattern of dunes with moderate relief. Calcareous sands have organic staining to about 20 cm, passing into pale brown sand: some cementation below 1 m.	
Land degradation risk	The degradation risk factors mapped over the application area are detailed below:		
	Wind erosion	H1: 50-70% of map unit has a high to extreme wind erosion risk	
	Water erosion	L2: 3-10% of map unit has a high to extreme wind erosion risk	
	Salinity risk	L1: <3% of map unit has a high to extreme wind erosion risk	
	Phosphorous export	M1:10-30% of map unit has a high to extreme wind erosion risk	
	Waterlogging	L1:<3% of map unit has a high to extreme wind erosion risk	
	Subsurface acidification	Unknown risk	
	Acid sulphate soils	Unknown risk	
	Flooding	L1:<3% of map unit has a high to extreme wind erosion risk	
Floodplains	No		
Waterbodies	Aerial imagery indicated that the closest waterbody to the application area is the Indian Ocean, approximately 15 metres west. Three man-made perennial lakes are located approximately 1.23 kilometres east.		
Hydrogeography	Hydrological Zone	Coastal Plain	
	Basin	Swan Coastal (616)	
	Hydrographic Catchment	Swan Coastal_Coastal	
	RIWI Act Surface Water and Irrigation District	No	
	RIWI Act Rivers	No	
	RIWI Act Groundwater Areas	Yes	Perth Groundwater Area
	CAWS Act Clearing Control Catchment	No	
	Public Drinking Water Source Areas	No	
	Wellhead Protection Zone	No	
	Reservoir Protection Zone	No	
	The salinity of the application area is mapped at 500-1000 total dissolved solids milligrams per litre.		
	Flora	According to available databases, 18 conservation significant flora species have been recorded within the local area (10-kilometre buffer). These comprise of two Priority 1, three Priority 2, six Priority 3, four Priority 4, and three threatened flora taxa.	

Characteristic	Details
	A vegetation assessment and photographs supplied by the applicant did not identify any threatened or priority flora within the application areas (City of Wanneroo 2023a and 2023b).
Ecological communities	<p>According to spatial data, there are no Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) within the application area. The closest TEC, <i>Melaleuca huegelii</i> shrublands of limestone ridges, is approximately 1.65 kilometres from the application area.</p> <p>A vegetation assessment and photographs supplied by the applicant did not identify vegetation representative of a conservation significant ecological community (City of Wanneroo 2023a and 2023b).</p>
Fauna	<p>According to available databases, 33 conservation significant fauna species have been recorded within the local area comprising of one Priority 2, two Priority 3, four Priority 4, five Endangered, six Vulnerable, two critically endangered, 11 migratory, one specially protected species (OS), and one conservation dependent fauna taxa.</p> <p>A vegetation assessment and photographs supplied by the applicant did not identify any fauna habitat for conservation significant fauna within the application areas (City of Wanneroo 2023a and 2023b).</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	38.62	222,916.97	14.85
Quindalup Complex	54,573.87	33,011.64	60.49	4,457.79	15.84
Local area					
10km radius	16,317.16	7,569.13	46.39	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

Appendix D. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a):</u> <i>“Native vegetation should not be cleared if it comprises a high level of biodiversity.”</i></p> <p><u>Assessment:</u> From a vegetation assessment undertaken and photographs supplied by the applicant (City of Wanneroo 2023a and 2023b), the area proposed to be cleared does not contain significant flora, fauna, habitats, or assemblages of plants.</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> From a vegetation assessment and desktop assessment, the area proposed to be cleared is unlikely to contain significant habitat for conservation significant 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> From a vegetation assessment undertaken and photographs supplied by the applicant (City of Wanneroo 2023a and 2023b), 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> The proposed clearing areas do not contain species that are representative of a threatened ecological community (City of Wanneroo 2023a and 2023b).</p>	Not at variance	No
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u> 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 at variance	No
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u> The application area occurs within Bush Forever area 397.</p>	At variance	Yes <i>Refer to Section 3.2.1, above.</i>
Environmental value: land and water resources		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u> The application area is located adjacent to the Indian Ocean. Given no watercourse or wetlands are mapped within 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 at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (g):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</p> <p><u>Assessment:</u> The mapped soil type is highly susceptible to wind erosion and phosphorous export. Given the small area (0.0776 hectares) proposed to be cleared is split between two areas that are predominantly in a Good (Keighery, 1994) condition, the proposed clearing is not likely to have an appreciable impact on land degradation. Revegetating the area post-clearing at the next optimum time will reduce the potential for wind erosion to occur in the long term.</p>	Not likely to be at variance	No
<p><u>Principle (i):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</p> <p><u>Assessment:</u> 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 extent of native vegetation proposed to be cleared, the clearing is unlikely to impact upon groundwater quality.</p>	Not at variance	No
<p><u>Principle (j):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</p> <p><u>Assessment:</u> 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 at variance	No

Appendix D. Vegetation condition rating scale

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

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from:

Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.

Condition	Description
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix E. Applicant site inspection report excerpts and photographs of the vegetation

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

South

Table 1: Species identified during the City’s onsite vegetation assessment (City of Wanderoo 2023a).

Native species	Weed/ planted species
<i>Acacia rostelifera</i>	<i>Pelargonium capitatum</i>
<i>Acanthocarpus preissii</i>	<i>Tetragonia decumbens</i> (Sea Spinach)
<i>Carpobrotus virescens</i> (Coastal Pigface)	
<i>Ficinia nodosa</i>	
<i>Lepidosperma gladiatum</i>	
<i>Myoporum insulare</i>	
<i>Olearia axillaris</i>	
<i>Rhagodia baccatta</i>	
<i>Scaevola crassifolia</i>	
<i>Senecio pinnatifolius</i>	
<i>Spyridium globulosum</i>	
<i>Threlkeldia diffusa</i>	



Figure 4. Photograph of application area including *Carpobrotus virescens*, *Myoporum insulare*, and *Olearia axillaris* (City of Wanneroo, 2023b).



Figure 5. Photograph of application area including *Acacia rostelifera*, *Carpobrotus virescens*, *Myoporum insulare*, and *Olearia axillaris* (City of Wanneroo, 2023b).



Figure 6. Photograph of application area including *Carpobrotus virescens*, *Ficinia nodosa*, and *Myoporum insulare* (City of Wanneroo, 2023b).



Figure 7. Photograph of application area including *Ficinia nodosa*, *Olearia axillaris*, and *Myoporum insulare* (City of Wanneroo, 2023b).



Figure 8. Photograph of application area including *Acacia rostellifera*, *Carpobrotus virescens*, *Myoporum insulare*, and *Olearia axillaris* (City of Wanneroo, 2023b).



Figure 9. Photograph of application area including *Acacia rostellifera*, *Carpobrotus virescens*, *Myoporum insulare*, and *Olearia axillaris* (City of Wanneroo, 2023b).



Figure 10. Photograph of application area including *Acacia rostellifera*, *Carpobrotus virescens*, *Myoporum insulare*, and *Olearia axillaris* (City of Wanneroo, 2023b).



Figure 11. Photograph of application area including *Acacia rostellifera* and *Olearia axillaris* (City of Wanneroo, 2023b).

Central

Table 2: Species identified during the City’s onsite vegetation assessment (City of Wanderoo 2023b).

Native species	Weed/ planted species
<i>Acanthocarpus preissii</i>	<i>Bromus diandrus</i> (Brome grass)
<i>Lepidosperma gladiatum</i>	<i>Pelargonium capitatum</i>
<i>Lomandra maritima</i>	<i>Tetragonia decumbens</i> (Sea Spinach)
<i>Olearia axillaris</i>	
<i>Rhagodia baccata</i>	
<i>Scaevola crassifolia</i>	
<i>Senecio pinnatifolius</i>	
<i>Threlkeldia diffusa</i>	

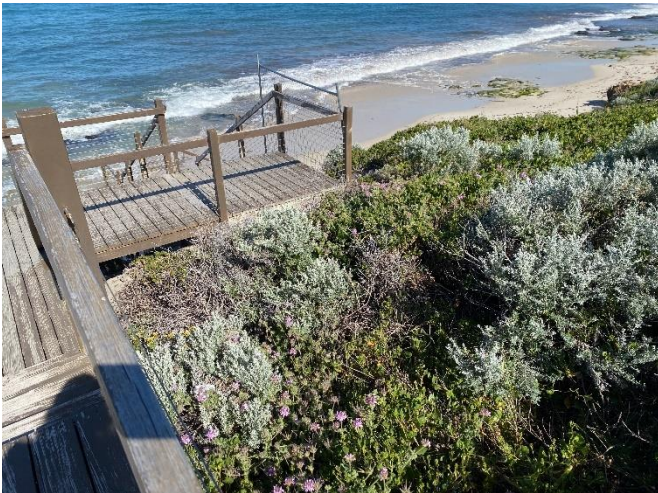


Figure 12. Photograph of application area including *Carpobrotus virescens*, *Myoporum insulare*, and *Olearia axillaris* (City of Wanneroo, 2023a).



Figure 13. Photograph of application area including *Carpobrotus virescens*, *Myoporum insulare*, and *Olearia axillaris* (City of Wanneroo, 2023a).



Figure 14. Photograph of application area including *Carpobrotus virescens*, *Myoporum insulare*, and *Olearia axillaris* (City of Wanneroo, 2023a).



Figure 15. Photograph of application area including *Carpobrotus virescens*, *Myoporum insulare*, and *Olearia axillaris* (City of Wanneroo, 2023a).



Figure 16. Photograph of application area including *Carpobrotus virescens*, *Myoporum insulare*, and *Olearia axillaris* (City of Wanneroo, 2023a).

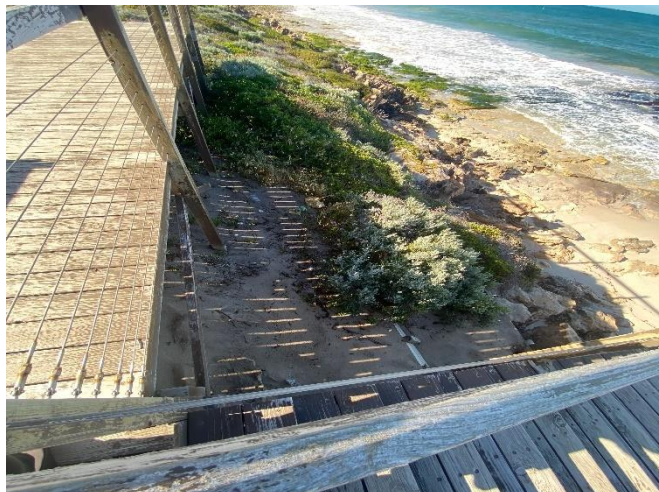


Figure 17. Photograph of application area including *Carpobrotus virescens*, *Myoporum insulare*, and *Olearia axillaris* (City of Wanneroo, 2023a).



Figure 18. Example photo of vegetation over minimal sand and on top of limestone (City of Wanneroo, 2024b).

Appendix F. Sources of information

F.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)

- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

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

F.2. References

- City of Wanneroo (2023a) Lot 15450 on DP 40341, 2397L Marmion Avenue, - Native Vegetation Clearing Permit Supporting Documentation, December 2023, received 31 January 2024 (DWER Ref: DWERDT913240)
- City of Wanneroo (2023b) Lot 15450 on DP 40341, 2397L Marmion Avenue, Jindalee - Native Vegetation Clearing Permit Supporting Documentation, December 2023, received 31 January 2024 (DWER Ref: DWERDT913239).
- City of Wanneroo (2024a) clearing permit application CPS 10477/1, received 10 January 2024 (DWER Ref: DWERDT889839).
- City of Wanneroo (2024b) Response to draft clearing permit conditions, received 23 April 2024 (DWER Ref: DWERDT938888).
- Department of Environment Regulation (DER) (2014). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf
- Department of 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.
- Environmental Protection Authority (EPA) (2016). *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment*. Available from: http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf.
- Environmental Protection Authority (EPA) (2020). *Technical Guidance – Terrestrial Fauna Surveys*. Available from: https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/2020.09.17%20-%20EPA%20Technical%20Guidance%20-%20Vertebrate%20Fauna%20Surveys%20-%20Final.pdf

- Government of Western Australia (2019) *2018 South West Vegetation Complex Statistics. Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>
- Government of Western Australia. (2019) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske, E.M. and Havel, J.J. (1998) *Vegetation Complexes of the South-west Forest Region of Western Australia*. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- Molloy, S., Wood, J., Hall, S., Wallrodt, S. and Whisson, G. (2009) *South West Regional Ecological Linkages Technical Report*, Western Australian Local Government Association and Department of Environment and Conservation, Perth.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) *Atlas of Australian Soils*, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.
- Schoknecht, N., Tille, P. and Purdie, B. (2004) *Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs* Resource Management Technical Report No. 280. Department of Agriculture.
- Shah, B. (2006) *Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia*. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.
- Valentine, L.E. and Stock, W. (2008) *Food Resources of Carnaby's Black Cockatoo (Calyptorhynchus latirostris) in the Gnamptara Sustainability Strategy Study Area*. Edith Cowan University and Department of Environment and Conservation. December 2008.