



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

ADVICE NOTE

Revegetation offset

The *revegetation* offset referred to in condition 6 is to facilitate the *rehabilitation* of 0.0871 hectares of *native vegetation* within Lot 15454 on Deposited Plan 40340, Quinns Rocks and 1.1 hectares of *native vegetation* within Lot 15454 and Lot 15449 on Deposited Plan 10340 and Lot 7019 on Plan 7318, Quinns Rocks, that comprises Quindalup Vegetation Complex and restores the north-south ecological linkage of Bush Forever site 397 within an extensively cleared landscape.

PERMIT DETAILS

| Area Permit Number: | CPS 10711/1 |
|---------------------|---------------------------------|
| File Number: | DWERVT15794 |
| Duration of Permit: | From 4 July 2025 to 4 July 2034 |

PERMIT HOLDER

City of Wanneroo

LAND ON WHICH CLEARING IS TO BE DONE

Lot 15454 on Deposited Plan 40340 (Crown Reserve 22915), Quinns Rocks Ocean Drive Road reserve (PINs 1164884, 1164885, 1167503), Quinns Rocks

AUTHORISED ACTIVITY

The permit holder must not clear more than 0.597 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. Period during which clearing is authorised

The permit holder must not clear any native vegetation after 4 July 2032.

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

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

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

3. Weed and dieback management

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of introduction and spread of *weeds* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known *dieback* or *weed*-affected soil, *mulch*, *fill*, or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

4. Directional clearing

The permit holder must:

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

5. Wind erosion management

The permit holder must commence construction no later than two (2) months after undertaking the authorised clearing activities to reduce the potential for wind erosion.

6. Offset – Revegetation and rehabilitation

- (a) At an *optimal time* and no later than 4 July 2029, the permit holder must *revegetate* and *rehabilitate* the combined areas cross-hatched red on Figure 1 of Schedule 1, by implementing and adhering to the *Revegetation Plan* prepared by the City of Wanneroo and dated April 2025, including but not limited to the following actions:
 - (i) deliberately *planting* and/or *direct seeding native vegetation* that will result in the minimum completion criteria detailed in Table 1 of Schedule 2 of this permit and ensuring only *local provenance* seeds and propagating material are used;
 - (ii) remove no-native planted vegetation prior to *planting* and/or *direct seeding*;
 - (iii) undertake *weed* control activities to achieve and maintain the minimum completion criteria specified on Table 1 of Schedule 2;
 - (iv) install temporary fencing around the beach front of the *revegetation* sites to restrict access where required;

- (v) establish at least five 10 x 10 metre quadrat monitoring sites within *rehabilitated* areas; and
- (vi) undertake monitoring of the areas *revegetated* and *rehabilitated* under condition 6 of this permit, undertaken by an *environmental specialist*, in accordance with the monitoring requirements outlined in Table 1 of Schedule 2 until the completion criteria listed in Table 1 of Schedule 2 have been met.
- (b) The permit holder must undertake *remedial actions* for areas *revegetated* and *rehabilitated* where monitoring indicates that the *revegetation* and *rehabilitation* has not met the completion criteria specified in Table 1 of Schedule 2, including:
 - (i) *Revegetate/rehabilitate* the area by deliberately *planting* and/or *direct seeding native vegetation* that will result in the minimum completion criteria detailed in Table 1 of Schedule 2 and ensuring only *local provenance* seeds and propagating material are used;
 - (ii) additional *weed* control activities;
 - (iii) annual monitoring of the *revegetated* and *rehabilitated* areas by an *environmental specialist*, until the completion criteria are met in year 3, 4 and 5; and
 - (iv) where an *environmental specialist* has determined that the completion criteria, outlined in Table 1 of Schedule 2 has been met, that determination must be submitted to the *CEO* within three months of the determination being made by the *environmental specialist*.

7. 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.

| No. | Relevant matter | Specifications | | |
|-----|---|----------------|--|--|
| 1. | In relation to the authorised clearing activities generally | (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 2; | |
| | | (f) | Actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 3; and | |
| | | (g) | Actions taken in accordance with | |

 Table 1: Records that must be kept

| No. | Relevant matter | Specifications | |
|-----|--|----------------|---|
| | | | conditions 4 and 5. |
| 2. | In relation to the <i>revegetation</i> and <i>rehabilitation</i> of areas pursuant to condition 6. | (a) | A description of the <i>revegetation</i> and <i>rehabilitation</i> activities undertaken each year, once commenced, outlined in a report produced by an <i>environmental specialist;</i> |
| | | (b) | The location and size of the areas <i>revegetated</i> and <i>rehabilitated</i> (in hectares) recorded using a GPS unit set to GDA 2020, expressing the geographical coordinates in Eastings and Northings or decimal degrees; |
| | | (c) | The date that <i>revegetation</i> and <i>rehabilitation</i> works began; |
| | | (d) | The baseline data provided in the <i>Revegetation Plan</i> recorded for the areas to be <i>revegetated/rehabilitated</i> , including species richness, species density, vegetation structure and <i>weed</i> cover; |
| | | (e) | The species composition, structure, density of the areas <i>revegetated/rehabilitated</i> recorded in year 3, 4 and 5 and annually after that until completion criteria has been met; |
| | | (f) | Results of annual monitoring against the completion criteria; |
| | | (g) | The date completion criteria area considered to have been met; and |
| | | (h) | Any other actions in accordance with condition 6. |

8. Reporting

- (a) The permit holder must provide to the *CEO* on or before 30th June of each calendar year, a written report containing:
 - (i) the records required under condition 7 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 7, where these records have not already been provided under condition 8(a).

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. | |
| environmental specialist | 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. | |
| fill | means material used to increase the ground level, or to fill a depression. | |
| dieback | means the effect of <i>Phytophthora</i> species on native vegetation. | |
| direct seeding | direct seeding means a method of re-establishing vegetation through the 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</i> <i>Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3. | |
| EP Act | Environmental Protection Act 1986 (WA) | |
| local provenance | 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. | |
| 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. | |
| optimum time | means the period between April and July | |
| planting | means the re-establishment of vegetation by creating soil conditions and planting seedlings of the desired species | |
| remedial action/s | remedial action/s 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 revegetation. | |
| 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 preclearing vegetation types in that area. | |
| rehabilitate/ed/ion | means actively managing an area containing native vegetation in order to improve the ecological function of that area. | |
| rehabilitation plan | means the rehabilitation plan approved by the CEO 'Frederick Stubbs Car Park Revegetation Plan' prepared by City of Wanneroo, provided on 7 | |

| Term | Definition | |
|-------|---|--|
| | April 2025 (DWER reference DWERD1101501) | |
| | neans any plant – | |
| weeds | (a) that is a declared pest under section 22 of the <i>Biosecurity and</i> <i>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

Burton

Vessica Burton MANAGER NATIVE VEGETATION REGULATION

Officer delegated under Section 20 Of the Environmental Protection Act 1986

11 June 2025

SCHEDULE 1

The boundary of the area authorised to be cleared is cross-hatched yellow on the map below. The boundary of the areas in which *revegetation* and *rehabilitation* must occur is cross-hatched red (Figure 1.)



Figure 1: Map of the boundary of the area within which clearing may occur (crosshatched yellow) and the boundary of the area in which rehabilitation must occur (crosshatched red).

SCHEDULE 2

| Table 1: The | revegetation | completion | targets | and criteria |
|--------------|--------------|------------|---------|--------------|
|--------------|--------------|------------|---------|--------------|

| Measure | Completion Targets | Completion Criteria | Monitoring |
|---------------------|--|---|--|
| Native diversity | Minimum of 60% of native species returned. | A minimum of 4 native species per 10m by 10m quadrat. | Native diversity will be counted annually for the first 3 years, and if the completion criteria are not met within 3 years then annual monitoring is required until the completion criteria is met. |
| Weed density | Weed cover at the site is 10% or less (minor non-competitive weeds). | Weed cover is to be 10% or less of minor non- competitive weeds. | Weed cover percentage will be assessed annually for the first 3 years, and if the completion criteria are not met within 3 years then annual monitoring is required until the completion criteria is met. |
| Native density | Survival rate of 2 native plants/m ² . | A survival rate of 2 plant/m ² is to be achieved after 3 years. All planted species that have not survived will be replanted within 12 months and monitored for a further 2 years. | The number of surviving plants will be counted annually for the first 3 years, and if the completion criteria are not met within 3 years, then annual monitoring is required until the completion criteria is met. |
| Watering | Watering tubestock over summer months. | Watering to be conducted 5 times over the summer months each year for 3 years, or until the completion criteria are met. | Watering of tubestock to be conducted 5 times in years 1, 2 and 3, or until completion criteria are met. |
| Weed control | Weed control events to be conducted a minimum of 4 applications annually as required with the first event to be undertaken prior to planting. | Weed control events to be conducted a minimum of 4 applications annually as required for 3 years, or until the completion criteria are met. | Quarterly weed control events to be conducted a minimum of 4 applications annually as required in years 1, 2 and 3, or until completion criteria are met. |



Clearing Permit Decision Report

| 1 Application details and outcome | | |
|-----------------------------------|--|--|
| 1.1. Permit applicati | on details | |
| Permit number: | CPS 10711/1 | |
| Permit type: | Area permit | |
| Applicant name: | City of Wanneroo | |
| Application received: | 2 August 2024 | |
| Application area: | 0.597 hectares of native vegetation | |
| Purpose of clearing: | Carpark upgrades and coastal erosion management | |
| Method of clearing: | Mechanical clearing/bulldozing | |
| Property: | Lot 15454 on Deposited Plan 40340, Quinns Rocks | |
| | Ocean Drive Road reserve (PIN 1164885), Quinns Rocks | |
| | Ocean Drive Road reserve (PIN 1164884), Quinns Rocks | |
| | Ocean Drive Road reserve (PIN 1167503), Quinns Rocks | |
| Location (LGA area/s): | City of Wanneroo | |
| Localities (suburb/s): | Quinns Rocks | |

1.2. Description of clearing activities

The City of Wanneroo (the City) are proposing to undertake the clearing of native vegetation within Lot 15454 on Deposited Plan 40340 and Ocean Drive Road reserve (PINs 1164885, 1164884, 1167503), Quinns Rocks. The vegetation proposed to be cleared is distributed across nine separate areas to allow for carpark upgrades and coastal erosion management (see Figure 1, Section 1.5).

| 4.0 | D | | 11 |
|------|----------|-------|-----------|
| 1.3. | Decision | on ap | plication |

| Decision: | Granted |
|----------------|---|
| Decision date: | 11 June 2025 |
| Decision area: | 0.597 hectares of native vegetation, as depicted in Section 1.5, below. |

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 21 days and one submission was received. Consideration of matters raised in the public submission is summarised in Appendix B.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix C), relevant datasets (see Appendix G.1), the findings of a flora and vegetation assessment (see Appendix F), the clearing principles set out in Schedule 5 of the EP Act (see Appendix D), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration that the

purpose of the clearing was to upgrade the existing Frederick Stubbs carpark and surrounds to address erosion, drainage, public safety and accessibility concerns.

The assessment identified that the proposed clearing will result in:

- the loss of 0.597 hectares of native vegetation within Bush Forever Site 397,
- the loss of native vegetation that is suitable habitat for quenda (*Isoodon fusciventer*) and is significant as a remnant of native vegetation in an area that has been extensively cleared,
- impacts to fauna individuals if they are present in the application area at the time of clearing,
- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values and
- potential land degradation in the form of wind erosion.

After consideration of the available information, the Delegated Officer determined that the impacts of the proposed clearing in a Bush Forever area is significant. In accordance with the *Government of Western Australia's Environmental Offsets Policy* (2011), *Environmental Offsets Guidelines* (2014) and State Planning Policy 2.8 (SPP 2.8), the Delegated Officer determined that the following revegetation offset is required to address the significant residual impacts to Bush Forever site 397:

- revegetation and rehabilitation in two locations, which are both located within Bush Forever Site 397;
 - o 0.09 hectares of native vegetation within Lot 15454 on Deposited Plan 40340, Quinns Rocks, and
 - 1.1 hectares of native vegetation within Lot 15454 and Lot 15449 on Deposited Plan 10340, and Lot 7019 on Plan 7318, Quinns Rocks.

The Delegated Officer determined that the above offset was sufficient to counterbalance the significant residual impacts associated with this project. Further information on the suitability of the offset provided is summarised in Section 4.

The Delegated Officer determined that the proposed clearing is unlikely to have any long-term adverse impacts on the environment, and that management and mitigation measures conditioned on the permit will mitigate any potential impacts. There is not likely to be significant fauna habitat impacted, and the clearing is not likely to lead to appreciable land degradation. The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise to reduce the impacts and extent of clearing,
- take hygiene steps to minimise the risk of the introduction and spread of weeds,
- staged clearing to minimise wind erosion,
- undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity, and
- revegetate a minimum of 1.19 hectares of native vegetation within Bush Forever Site 397, in alignment with Bush Forever requirements set out in SPP 2.8.

1.5. Site map



Figure 1 Map of the application area

The areas crosshatched yellow indicate the areas authorised to be cleared under the granted clearing permit.

2 Legislative context

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

In addition to the matters considered in accordance with section 510 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

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)

3 Detailed assessment of application

3.1. Avoidance, minimisation and mitigation measures

The City of Wanneroo have advised the following avoidance and minimisation measures for the application (City of Wanneroo, 2024):

- The Quinns Rocks Beach profile was surveyed against historical profiles, and this was used in various erosion modelling scenarios, including a SPP2.6 design storm as this is considered a 100-year ARI event in terms of erosion. The modelling demonstrated the existing carpark needs to be offset and maximum of 13 meters assuming a beach buffer is required, and a maximum of 8 meters assuming a retaining wall is installed. To cater for SPP2.6 design event, the maximum safe setback distance was chosen to increase the life of the infrastructure and safety to the public using the space. The choice to install limestone retaining walls, rock protection and sandfill allowed the setback to be reduced (compared to the beach buffer) and thus reducing the impact of the surrounding environment.
- Surveying, and clearly delineating, 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
 Quinns Rocks coastal foreshore reserve, and that vegetation outside the approved clearing area is not
 adversely affected,
- A Construction Management Plan (CMP) will be submitted, reviewed, and approved by the City outlining how the Carpark and surrounds will be constructed including clearing activities and methodology, the demolition of the existing structures and removal of demolished materials, site hygiene, dust suppression methods and material storage, among other considerations,
- Areas temporarily disturbed due to demolition and construction works will be stabilised and revegetated where possible following the completion of construction activities. Temporarily cleared areas associated with the carpark will be planted with local native species such as:
 - o Spinifex longifolius
 - o Olearia axillaris
 - o Scaevola crassifolia
 - o Rhagodia baccata
 - o Leucophyta brownii
 - Carpobrotus virescens
- North and South interfaces between the proposed Frederick Stubbs Carpark and the remaining native vegetation will be contoured via civil works to match the existing dune face. The north and south clearing boundaries will be revegetated with local native coastal species with the aim to match existing vegetation structures, allowing fauna (specifically Quenda) movement through the site and dune system.

After consideration of avoidance and mitigation measures, it was determined that an offset to counterbalance the significant residual impacts to Bush Forever was necessary. This impact was addressed through the conditioning of an environmental offset on the permit. The City have proposed revegetation to take place within two locations, including 0.0871 hectares of native vegetation within Lot 15454 on Deposited Plan 40340, Quinns Rocks and 1.1 hectares of native vegetation within Lot 15454 and Lot 15449 on Deposited Plan 10340 and Lot 7019 on Plan 7318, Quinns Rocks. The City have provided revegetation completion targets and criteria for each site (Appendix F). 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 C) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water

resource values.

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

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

Assessment

The application is located within the Swan Coastal Plain IBRA bioregion. According to available databases a total of 37 conservation significant fauna species have been recorded within the local area (10-kilometre radius of the application area). Of the conservation significant fauna species recorded within the local area, the application area may provide habitat for seven conservation significant fauna species.

The application area may provide habitat for the following five migratory or wetland bird species, these species are as follows:

- Ardenna carneipes (flesh-footed shearwater)
- Ardenna pacifica (wedge-tailed shearwater)
- Macronectes giganteus (southern giant petrel)
- Pandion haliaetus (osprey)
- Thalasseus bergii (crested tern)

Whilst these species may temporarily utilise the application area, it is unlikely to comprise significant habitat to these migratory species due to the lack of suitable breeding habitat, therefore, impacts on these species are likely to be minimal.

The two remaining conservation significant fauna species recorded within the local area that required further consideration include:

- Isoodon fusciventer (quenda)
- Synemon gratiosa (graceful sun moth)

Quenda (P4)

Quenda inhabit areas of dense vegetation including wetland fringes and heathlands. Quenda rarely venture from cover and will feed by digging in leaf litter and soil to find food (DEC, 2012). Given the extent of the application area and largely degraded to completely degraded (Keighery, 1994) condition of the vegetation with a lack of preferred dense vegetation, it is unlikely that the application area comprises significant habitat for the species. Quenda may however occur within the application area while moving through the landscape, and there is therefore a risk of injury to any such individuals during clearing. The implementation of slow, directional clearing measures will allow any individuals present during clearing to move ahead of the clearing and into adjacent suitable habitat.

Graceful sun moth (P4)

The graceful sun moth is a medium-sized diurnal flying sun moth, typically associated with open areas of coastal herbland, heathland, and shrubland on secondary Quindalup dunes containing *Lomandra maritima* and in banksia woodland containing *Lomandra hermaphrodita* (TSSC, 2013). There is little information on the biology and ecology of sun moths, however the graceful sun moth is known to fly between mid-February and late March each year (TSSC, 2013). As the vegetation within the application area does not consist of these host plants, the presence of the moth within the site is unlikely. Taking into consideration the known distribution of the species, its mobility and the extent of vegetation, which is present in the surrounding area, the application area is unlikely to provide significant habitat for graceful sun moth.

Ecological linkage

The application area is within a broader remnant that has a part in maintaining connectivity between remnants in the local area and is within one of a number of 'Gnangara Mound' ecological linkages that are mapped in the local area. It is also mapped within Perth Regional Linkage 1 which identifies regional ecological linkages that broadly represent a link between patches of remnant vegetation judged to be of regional significance.

The Department of Planning Lands and Heritage (DPLH) (2024) recommends that proposals and decision making should proactively safeguard , enhance and establish ecological linkages between Bush Forever area, including

the re-establishment of habitat corridors. Given the extent and Degraded condition of the vegetation as well as the proposed revegetation by the City on site, it is considered unlikely that the proposed clearing will significantly reduce connectivity between remnant vegetation in the landscape or result in significant impacts to fauna dispersal through the local area.

Conclusion

Significant habitat refers to the resources (breeding, resting and feeding), connectivity or habitat area for a species or community that is critical for its survival. Noting the extent and purpose of the proposed clearing and its location within a broader remnant, it is considered that the proposed clearing is unlikely to have a significant impact on fauna habitat.

Whilst the application area does not comprise of significant habitat for fauna, there is the potential for individuals to be present at the time of clearing. Slow, directional clearing to allow the movement of fauna that may be present at the time of clearing into adjacent vegetation will mitigate any impacts to fauna individuals.

Conditions

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

- directional clearing, which requires slow, progressive, one directional clearing to allow terrestrial fauna to disperse ahead of the clearing activity should they occur on site at the time of clearing,
- hygiene management to reduce the risk of introducing and spreading weeds and dieback into adjacent vegetation.

3.2.2. Significant remnant vegetation - Clearing Principle (e)

Assessment

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 pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). The EPA recognises the Perth Metropolitan Region to be a constrained area, within which a minimum 10 per cent representation threshold for ecological communities is recommended (EPA, 2008).

According to available databases, the application area is mapped as the Swan Coastal Plain- Aeolian Deposits Quindalup Complex 55 which is described as Quindalup Complex, 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 *Melaleuca lanceolata* (Rottnest Teatree) - *Callitris preissii* (Rottnest Island Pine), the closed scrub of *Acacia rostellifera* (Summer-scented Wattle) and the low closed *Agonis flexuosa* (Peppermint) forest of Geographe Bay. This is consistent with the photographs provided with the application.

Within the local area, the mapped vegetation complex retains approximately 20.83 per cent of its pre-European native vegetation cover and is considered to be extensively cleared. However, noting the application area is located within a constrained area with the minimal area of clearing required, and revegetation commitments from the City, it is not considered to be a significant remnant within an extensively cleared landscape.

Conclusion

Noting the extent and purpose of the proposed clearing, its location within a broader remnant and within a constrained area, and the City's proposed revegetation plan within the conservation area (Bush Forever site 397) (resulting in no net impact to vegetation once established), it is considered that the impact of the proposed clearing is unlikely to sever connectivity within the surrounding area and does not constitute a significant residual impact

Conditions

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

- Avoid and minimise native vegetation clearing,
- The applicant will be required to take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback,
- Revegetation of a minimum of 1.19 hectares of native vegetation with Bush Forever Site 397.

3.2.3. Land Degradation - Clearing Principle (g)

Assessment

The application area is mapped across two soil phases, the Quindalup South youngest dune phase (211Qu_Q4) and the Quindalup South third dune phase (211Qu_Q3) which are characterised by irregular dunes with slopes up to 20% and loose calcareous sand.

According to available databases, the proposed clearing may increase the risk of wind erosion in the area. This is due to the sandy nature of the topsoil across the application area, in combination with the coastal location. As the proposed clearing is to remove narrow sections of vegetation located alongside an existing car park, the exposure of the clearing area to erosion will be minimised but still likely to occur. However, if appropriate management measures such as ground cover or adequate dust suppression on exposed surfaces are put in place, the environmental impacts caused by wind erosion can be managed. Ensuring works commence within two months of clearing will minimise exposure to bare soils.

Conclusion

Based on the above assessment, the proposed clearing may cause land degradation through wind erosion. Ensuring works commence within two months of the clearing will minimise any potential risks of wind erosion.

Conditions

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

• The permit holder must commence the construction of the pathway and conservation fencing no later than two (2) months after undertaking the authorised clearing activities to reduce the potential for wind erosion.

3.2.4. Conservation areas - Clearing Principle (h)

<u>Assessment</u>

The proposed clearing area is located within Quinns Rocks Foreshore Reserve (Bush Forever Site 397). The Frederick Stubbs carpark is also mapped within an Environmentally Sensitive Area (ESA) and Perth Regional Linkage 1.

Taking into consideration the extent of the proposed clearing, and the composition and condition of the vegetation proposed to be cleared, it is considered likely that the proposed clearing will partially sever connectivity within the ecological linkage and will constitute a significant residual impact on the Bush Forever site, in accordance with SPP 2.8.

SPP 2.8 sets out that:

'Proposals or decision-making' in respect of Bush Forever areas 'should:

(i) support a general presumption against the clearing of regionally significant bushland or other degrading activities, except where a proposal or decision –

a. is consistent with the overall purpose and intent of an existing Crown reserve or can be reasonably justified with regard to wider environmental, social, economic or recreational needs, and all reasonable alternatives have been considered in order to avoid or minimise any direct loss of regionally significant bushland, and reasonable offset strategies are secured to offset any loss of regionally significant bushland, where appropriate and practical (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, and at a ratio 2:1 when the conservation significance is deemed the highest (SPP 2.8 - Appendix 4).

DPLH advised that to ensure the integrity of Bush Forever area 397 is not compromised, and in accordance with SPP 2.8 5.1.1 (ii) and 5.1.2.1 (e), a formal offset package should be prepared in accordance with the *WA Environmental Offsets Policy* (2011) and Appendix 4 of SPP 2.8. This will ensure there will be an environmental gain for the proposed clearing (DPLH, 2024).

The City has proposed revegetation at a 2:1 ration, to be conducted in two locations including 0.09 hectares of native vegetation within Lot 15454 on Deposited Plan 40340, Quinns Rocks and 1.1 hectares of native vegetation within Lot 15454 and Lot 15449 on Deposited Plan 10340 and Lot 7019 on Plan 7318, Quinns Rocks.

There is potential that the proposed clearing activities could result in the introduction or spread of weeds and dieback into adjacent vegetation within Bush Forever Areas, which could impact on its habitat quality and connectivity.

Conclusion

It is considered that potential impacts to adjacent vegetation can be managed by undertaking steps to minimise the risk of the introduction and spread of weeds and dieback. It is also considered that impacts to Bush Forever site 397 can be addressed through revegetation and rehabilitation of select areas within the Bush Forever Site.

Conditions

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

- Take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback, and
- Revegetation of a minimum of 1.19 hectares of native vegetation within Bush Forever Site 397 to mitigate impacts to Bush Forever.

3.3. Relevant planning instruments and other matters

The clearing permit was advertised on DWER's website on 16 September 2024, inviting submissions from the public within a 21-day period. One submission was received (See Appendix B).

The applicant has advised that the proposed clearing is for the purpose of upgrading the Frederick Stubbs carpark and surrounds to address the following issues:

- Safety concerns for both road users and pedestrians due to the steep decline and incline required to enter and exit the carpark.
- Accessibility of the carpark and its integration with the other existing assets in the area,
- Drainage infrastructure is deemed inadequate, as the carpark experiences wave overtopping and/or high rainfall during unfavourable weather conditions, which causes significant scouring in the vicinity,
- Existing toilet block floor plan is deemed adequate, however, there are concerns regarding compliance, accessibility, security, functionality, aesthetic, and integration of the toilet block with other infrastructure in the vicinity,
- Ongoing coastal erosion of the coastline causing scouring of the western edge of the carpark despite of the active efforts of managing the erosion issues via sand renourishment, rock armoured groynes, sandbags and rock revetment works.

The application area is reserved Parks and Recreation in the Metropolitan Region Scheme (MRS), and is Crown Land, with a management order with the City of Wanneroo for Recreation and Parking. The site has the implementation category in the *State Planning Policy 2.8- Bushland Policy for the Perth Metropolitan Region* (SPP 2.8) as Bush Forever reserves (DPLH, 2024).

SPP 2.8 sets out that:

'Proposals or decision-making' in respect of Bush Forever areas 'should:

(*i*) support a general presumption against the clearing of regionally significant bushland or other degrading activities, except where a proposal or decision –

a. is consistent with the overall purpose and intent of an existing Crown reserve or can be reasonably justified with regard to wider environmental, social, economic or recreational needs, and all reasonable alternatives have been considered in order to avoid or minimise any direct loss of regionally significant bushland, and reasonable offset strategies are secured to offset any loss of regionally significant bushland, where appropriate and practical (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, and at a ratio 2:1 when the conservation significance is deemed the highest (SPP 2.8 - Appendix 4).

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, minimise and mitigation measures summarised in Section 3.1:

• The removal of 0.597 hectares of native vegetation within Bush Forever Site 397.

The applicant proposed an environmental offset consisting of revegetation and rehabilitation in two locations, including:

- 0.0871 hectares of native vegetation within Lot 15454 on Deposited Plan 40340, Quinns Rocks and
- 1.1 hectares of native vegetation within Lot 15454 and Lot 15449 on Deposited Plan 10340 and Lot 7019 on Plan 7318, Quinns Rocks.

The two sites are reserved as Parks and Recreation in the MRS, and has the implementation category in SPP 2.8 as Bush Forever reserves (existing or proposed).

This offset equates to 1.19 hectares, which is a clearing to revegetation ratio of approximately 2:1 or two times the area of native vegetation to be cleared. This is consistent with guidance under the SPP 2.8 for clearing within a Bush Forever site (detailed in Section 3.2.4) and *WA Environmental Offsets Policy 2011*.

The City's proposed monitoring and completion criteria is summarised in Appendix F – Table 1 of this report (City of Wanneroo, 2025), which covers plantings, watering and weed control.

In determining the appropriateness of an offset, the Delegated Officer took into consideration the applicants implementation of the mitigation hierarchy, and the public benefit of the proposed clearing (See Section 3.1) In considering these matters, the Delegated Officer determined that it was appropriate to grant the clearing permit in relation to the significant residual impacts, on the basis that a suitable environmental offset was implemented to counterbalance the impacts.

End

Appendix A. Additional information provided by applicant

| Summary of comments | Consideration of comment |
|---|--------------------------|
| Additional information provided by the applicant in response to the Department's request for further information on the 4 December 2024 | See Section 3.1 |
| City of Wanneroo (2025) CPS 10711/1- <i>Revegetation Plan</i> , received 12 May 2025 (DWER Ref: DWERDT1117101) | See Section 3.1 |

Appendix B. Details of public submissions

One submission was received raising three grounds in total, with supporting information provided as comments under each ground of submission.

| Summary of comments | Consideration of comment |
|--|--|
| The proposed new access road to the north will affect vegetation in Good (Keighery, 1994) condition, therefore identified as regionally significant for conservation in Bush Forever, suggestions to avoid the area are: Locating new northern access road further south Locating ablutions blocks closer to Ocean Drove and further south | The impact of the clearing on environmental values, such as clearing taking place the Bush Forever Site 397, was taken into consideration during the assessment of the application. The assessment against this environmental value can be found in Section 3.2.4 of this report. |
| • Reducing the number of car parking bays so that the northern access and all car parking sits within the existing footprint. | |
| For portions of the site that have not been built upon, landscaping with indigenous plants is proposed, and a landscaping and vegetation management plan is to be required. | The revegetation and rehabilitation offsets is outlined in Section 4 to balance out the significant residual impacts remaining as a result of the clearing. |

| Summary of comments | Consideration of comment |
|---|--|
| In the long-term coastal erosion associated with climate change is a moot point for both the hard infrastructure and the coastal vegetation that remains. | The Delegated Officer considered impacts to land degradation, including wind erosion. The assessment against this environmental value can be found in Section 3.2.3 of this report. |

Appendix C. Site characteristics

C.1. Site characteristics

The information provided below describes the key characteristics of the application area and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix D.

| Characteristic | Details |
|------------------------|---|
| Local context | The application area consists of 0.597 hectares of coastal native vegetation in the intensive land use zone of Western Australia. It is adjacent to coastal dunes to the west and residential areas to the east. |
| | The local area (10-kilometre radius from the centre of the application area) retains approximately 20.83 per cent of the original native vegetation cover. |
| Ecological linkage | The application area is located within Perth Regional Linkage 1. |
| Conservation areas | The application area is located within Bush Forever Site 397. |
| Vegetation description | Information provided by the City of Wanneroo indicate the vegetation within the application area reflects the Swan Coastal Plain- Quindalup Complex 55. |
| | Representative photos and maps are available in Appendix F |
| | This is consistent with the mapped vegetation type: |
| | Quindalup Complex, 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</i> <i>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</i> <i>flexuosa</i> (Peppermint) forest of Geographe Bay (Heddle et al, 1980) |
| | The mapped vegetation type retains approximately 60.49 per cent of the original extent (Government of Western Australia, 2019). |
| Vegetation condition | Photographs supplied by the applicant indicate the vegetation within the application area is in Degraded (Keighery, 1994) condition. |
| | The full Keighery (1994) condition rating scale is provided in Appendix E. |
| | Representative photos and mapping are available in Appendix F. |
| Climate and landform | The application area occurs on gently undulating to flat topography and has a mean annual rainfall of 800 millilitres. |
| Soil description | The soils within the application area are mapped as: |
| | Quindalup South youngest dune phase (211Qu_Q4) which is described as the youngest phase. Irregular dunes with slopes up to 20%. Loose pale brown calcareous sand with no soil profile development. |

| Characteristic | Details | | |
|--------------------------------|--|--|--|
| | Quindalup South third dune phase (211Qu_Q3) which is 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. | | |
| Land degradation risk | The soils mapped within the application area are mapped as being highly susceptible to wind erosion but have moderate risk of phosphorus export. (DPIRD, 2021). | | |
| Waterbodies and hydrogeography | The desktop assessment and aerial imagery indicated that no waterbodies or wetlands intersect the application area. The closest waterbody to the application area is a perennial lake 2.4 kilometres north east. | | |
| | The application area is located within the Perth Groundwater Area, proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (RIWI Act). | | |
| | Groundwater salinity within the application area is mapped at 500-1000 milligrams per litre total dissolved solids. | | |
| Flora | The desktop assessment identified that a total of 18 conservation significant flora species has been recorded within the local area, comprising of three threatened flora species and 15 priority flora species (Western Australian Herbarium, 1998-). None of these existing records occur within the application area, with the closest record being an occurrence of <i>Conostylis bracteata</i> approximately 0.77 kilometres from the application area. | | |
| | With consideration for the relevant datasets (see Appendix G.1), the habitat preferences and conservation statuses of the aforementioned species and the distribution and extent of existing records, the application area is unlikely to provide habitat for conservation significant flora species. | | |
| Ecological communities | The desktop assessment identified that there are no conservation significant ecological communities within the application area. The closest mapped ecological community is the <i>Melaleuca hueglii- M. systena</i> shrublands of limestone ridges (floristic community type 26a as originally described in Gibson <i>et al</i> 1994) threatened ecological community (TEC) by the Department of Biodiversity, Conservation and Attractions in Western Australia, which is located 1.9 kilometres north west of the application area. | | |
| | With consideration for the site characteristics and relevant datasets (see Appendix G.1) the application area is not considered likely to contain vegetation representative of a TEC or Priority Ecological Community (PEC). | | |
| Fauna | The desktop assessment identified that a total of 37 conservation significant fauna species have been recorded within the local area including 18 threatened species, nine priority species, nine migratory species and one extinct species. None of these existing records occur within the application area, with the closest being an occurrence of <i>Chelonia mydas</i> approximately 36 metres from the application area (DBCA, 2007-). | | |
| | With consideration for the site characteristics set out above, relevant datasets (see Appendix G.1) and the habitat preferences of the aforementioned species, the application area is likely to provide significant habitat for conservation significant fauna species and impacts to these fauna species required further consideration (see Section 3.2.2). | | |

| C.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 | 1501221.93 | 579813.47 | 38.62 | 222916.97 | 14.85 | | |
| Vegetation complex | | | | | | | |
| Quindalup Complex* | 54573.87 | 33011.64 | 60.49 | 5994.64 | 10.98 | | |
| Local area | | | | | | | |
| 10km radius | 32127.84 | 6691.99 | 20.83 | - | - | | |

*Government of Western Australia (2019)

C.3. Fauna analysis table

| Species name | Conservation status | Suitable habitat features? [Y/N] | Suitable vegetation type? [Y/N] | Distance of closest record to application area (km) | Number of known records (total) | Are surveys adequate to identify? [Y, N, N/A] |
|-------------------------------------|------------------------|---|---------------------------------------|---|--|---|
| Quenda (Isoodon fusciventer) | P4 | Y | Y | 0.40 | 130 | N/A |
| Graceful sunmoth (Synemon gratiosa) | P4 | Y | N | 1.08 | 238 | N/A |

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

Appendix D. Assessment against the clearing principles

| Assessment against the clearing principles | Variance level | Is further consideration required? |
|---|------------------------------------|--|
| Environmental value: biological values | | |
| Principle (a):"Native vegetation should not be cleared if it comprises a high level of biodiversity."Assessment:The application area does not contain regionally significant flora, fauna or assemblages of plants. However, the application area is located within Bush Forever site 397 and provides fauna habitat and ecological linkage. | May be at variance | Yes Refer to Section 3.2.1, above. |
| Principle (b): "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." <u>Assessment:</u> The application area contains limited habitat for conservation significant fauna. | May be at variance | Yes Refer to Section 3.2.1, above. |
| Principle (c):"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."Assessment:The application area is unlikely to contain habitat for flora species listed under the BC Act. | Not likely to be at variance | No |

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| Assessment against the clearing principles | Variance level | Is further consideration required? | |
|---|--|--|--|
| <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." | Not at variance | No | |
| <u>Assessment:</u> The application area does not contain species that can indicate a TEC. | | | |
| Environmental value: significant remnant vegetation and conservation ar | eas | | |
| <u>Principle (e):</u> "Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared." | At variance | Yes Refer to Section 3.2.2, above. | |
| <u>Assessment:</u> The extent of native vegetation in the local area is inconsistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is considered to be part of a significant ecological linkage in the local area. | | | |
| <u>Principle (h):</u> "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." | <u>ple (h):</u> "Native vegetation should not be cleared if the clearing of the At variance ation is likely to have an impact on the environmental values of any ent or nearby conservation area." | | |
| <u>Assessment:</u> The application area is located within Bush forever site 397, therefore the proposed clearing is likely to have an impact on the environmental values of the site. | | | |
| Environmental value: land and water resources | | | |
| <u>Principle (f):</u> "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland." | Not at variance | No | |
| <u>Assessment:</u> Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact on- or off-site hydrology and water quality. | | | |
| <u>Principle (g):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation." | May be at variance | Yes Refer to Section | |
| <u>Assessment:</u> The mapped soils highly susceptible to wind erosion. Noting the extent and location of the application area the proposed clearing may have an appreciable impact on land degradation. | | 3.2.3, above. | |
| <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." | Not likely to be at variance | No | |
| <u>Assessment:</u> Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality. | | | |
| <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." | Not likely to be at variance | No | |
| <u>Assessment:</u> The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding. | | | |
| Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to contribute to waterlogging. | | | |

Appendix E. Vegetation condition rating scale

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

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

| 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. |

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

Appendix F. Biological survey information excerpts and photographs of the vegetation (City of Wanneroo, 2024)









Figure 8. Project Revegetation Area, Frederick Stubbs Carpark (Revegetation area in green=0.0871ha)



Figure 9. Offset area, Ocean Drive, Quinns Rocks (Revegetation are in blue= 1.1 ha)

| | Completion targets | Completion criteria | Monitoring |
|---|--|--|---|
| 1 | 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 | Species richness and number of plants / m ² in the revegetation areas shall have a minimum of 50% native species per quadrat. | The species and number of plants /m ² in the revegetation areas will be counted in years 2 and 3. |
| 2 | Weeds are mostly absent from the quadrats. Considering external pressures (adjacent areas used for public carpark and 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. |
| 3 | If after year 2 and year 3 of planting, a survival rate of 2 plants/m ² 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 ² 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 and 3. |
| 4 | Rubbish is absent from the revegetation sites. | The revegetation site contains minimal rubbish. | Monthly asset inspections |
| 5 | Fencing is installed and maintained to prevent unauthorised access to the revegetation site. | Fencing is maintained and there are no visible signs of vandalism and/or unauthorised access to the revegetation site. | Monthly asset inspections of fencing, maintenance issues ae reported and repaired when required. |
| 6 | 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 |

Table 1. City of Wanneroo Completion and Monitoring Criteria (City of Wanneroo, 2025)

Appendix G. Sources of information

G.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)

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

Restricted GIS Databases used:

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

G.2. References

City of Wanneroo (2024) *Clearing permit application and supporting information for CPS 10711/1*, received 2 August 2024 (DWER Ref: DWERVT15794).

City of Wanneroo (2025) *Response to request for further information for CPS 10711/1*, received 7 April 2025 (DWER Ref: DWERVT1101501).

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

Department of Environment Regulation (DER) (2013). A guide to the assessment of applications to clear native vegetation. Perth. Available from: <u>https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2 assessment native veg.pdf.</u>

Department of Planning, Lands and Heritage (DPLH) (2024) *Strategy and Engagement- Planning Policy Manager advice for clearing permit application CPS 10711/1,* received 8 October 2024. Department of Planning, Lands and Heritage, Western Australia (DWER Ref DWERDT1017344).

Department of Primary Industries and Regional Development (DPIRD) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development.* Government of Western Australia. URL: <u>https://maps.agric.wa.gov.au/nrm-info/</u> (accessed 17 September 2024).

- Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. https://dwer.wa.gov.au/sites/default/files/Procedure Native vegetation clearing permits v1.PDF.
- Environmental Protection Authority (EPA) (2008). *Environmental Guidance for Planning and Development Guidance Statement No* 33.Environmental Protection Authority Western Australia
- Environmental Protection Authority (EPA) (2016). *Technical Guidance Flora and Vegetation Surveys for Environmental Impact Assessment*. Available from: <u>http://www.epa.wa.gov.au/sites/default/files/Policies and Guidance/EPA%20Technical%20Guidance%20-</u> <u>%20Flora%20and%20Vegetation%20survey_Dec13.pdf</u>.
- 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
- Heddle, 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.
- Submission (2024) Public submission in relation to clearing permit application CPS 10711/1, received 5 October 2024 (DWER Ref: DWERDT1016663).
- Threatened Species Scientific Committee (TSSC) (2013) *Commonwealth Listing Advice on Synemon gratiosa* (*Graceful sunmoth*). Department of Sustainability, Environment, Water, Populations and Communities, Canberra. Available from http://www.environment.gov.au/biodivesity/threatened/species/pubs/66757-listing-advice.pdf
- Western Australian Herbarium (1998-). *FloraBase the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <u>https://florabase.dpaw.wa.gov.au/</u> (Accessed 17 September 2024)