GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 11145/1
Permit Holder:	City of Kwinana
Duration of Permit:	From 5 December 2025 to 5 December 2035

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 construction of a roundabout and associated infrastructure

2. Land on which clearing is to be done

Lot 9500 on Deposited Plan 75385, Wellard
Lot 3001 on Deposited Plan 58626 (Reserve 50531), Wellard
Henley Boulevard-Wellard Road reserve (PIN 12263974), Wellard

3. Clearing authorised

The permit holder must not clear more than 9 native trees within the area cross-hatched yellow in Figure 1 of Schedule 1.

4. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 5 December 2030.

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. Wind erosion management

The permit holder must commence activities related to the purpose of the clearing, no later than three (3) months after undertaking the authorised clearing activities to reduce land degradation risks.

8. Offset – Rehabilitation and revegetation

(a) Within 12 months of commencing clearing authorised under this permit, at an optimal time and no later than 5 December 2031, the permit holder must *rehabilitate* and *revegetate* the area cross-hatched red on Figure 2 of Schedule 1, by implementing and adhering to the *CPS 11145/1 Clearing Permit Application Mitigation, Avoidance measures and Offset Proposal (October, 2025), prepared by City of Kwinana*, including but not limited to the following actions:

(i) undertake best practice soil preparation techniques including ripping and mulching to promote plant survival;

(ii) 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;

(iii) undertake *weed* control activities to achieve and maintain the minimum completion criteria specified on Table 1 of Schedule 2; and

(iv) undertake monitoring of the areas *rehabilitated* and *revegetated* under condition 8 of this permit by an *environmental specialist* in accordance with Table 1 of Schedule 2 until the completion criteria listed in Table 1of Schedule 2 have been met.

(b) The permit holder must undertake remedial actions for areas *rehabilitated* and *revegetated*, where monitoring indicates that the *rehabilitation* and *revegetation* has not met the completion criteria specified in Table 1 of Schedule 2, including:

(i) *rehabilitate* and *revegetate* 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 *rehabilitated* and *revegetated* areas by an *environmental specialist*, until the completion criteria are met; and

(iv) where an *environmental specialist* has determined that the completion criteria, outlined in Schedule 2 has been met, that determination shall be submitted to the *CEO* within three months of the determination being made by the *environmental specialist*.

9. Offset – change in vesting

Prior to 5 December 2031, the permit holder shall provide to the *CEO* a copy of the executed change in purpose of Lot 3001 on Deposited Plan 58626 (being a portion of Crown Reserve 50531), Wellard, from 'Public Recreation' to 'Conservation', including the 0.7 hectare offset site hatched red on Figure 2 of Schedule 1.

PART III - RECORD KEEPING AND REPORTING

10. 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	(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; (f) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 6; (g) actions taken in accordance with condition 7; and (h) actions taken in accordance with condition 9.
2.	In relation to the *rehabilitation* and *revegetation* of areas pursuant to condition 8 of this permit.	(a) a description of the *rehabilitation* and *revegetation* activities undertaken each year, once commenced, outlined in a report produced by an *environmental specialist*; (b) the location and size of the areas *rehabilitated* and *revegetated* (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 *rehabilitation* and *revegetation*

No.	Relevant matter	Specifications
		works began; (d) results of annual monitoring against the completion criteria; (e) the date completion criteria area considered to have been met; and (f) any other actions in accordance with condition 8.

11. Reporting

The permit holder must provide to the *CEO* the records required under condition 10 of this permit when requested by the *CEO*.

DEFINITIONS

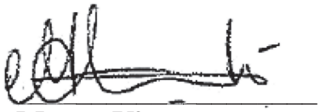
In this permit, the terms in Table 2 have the meanings defined.

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.
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 *Phytophthora* 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 *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 2.
EP Act	*Environmental Protection Act 1986* (WA)
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.
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.
optimal time	means the period between April and June

Term	Definition
planting	means the re-establishment of vegetation by creating soil conditions and planting seedlings of the desired species
revegetate/revegetated/ revegetation	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.
rehabilitate/rehabilitated/ rehabilitation	means actively managing an area containing native vegetation in order to improve the ecological function of that area.
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; 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



Meenu Vitarana
MANAGER
NATIVE VEGETATION REGULATION

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

12 November 2025

Schedule 1

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

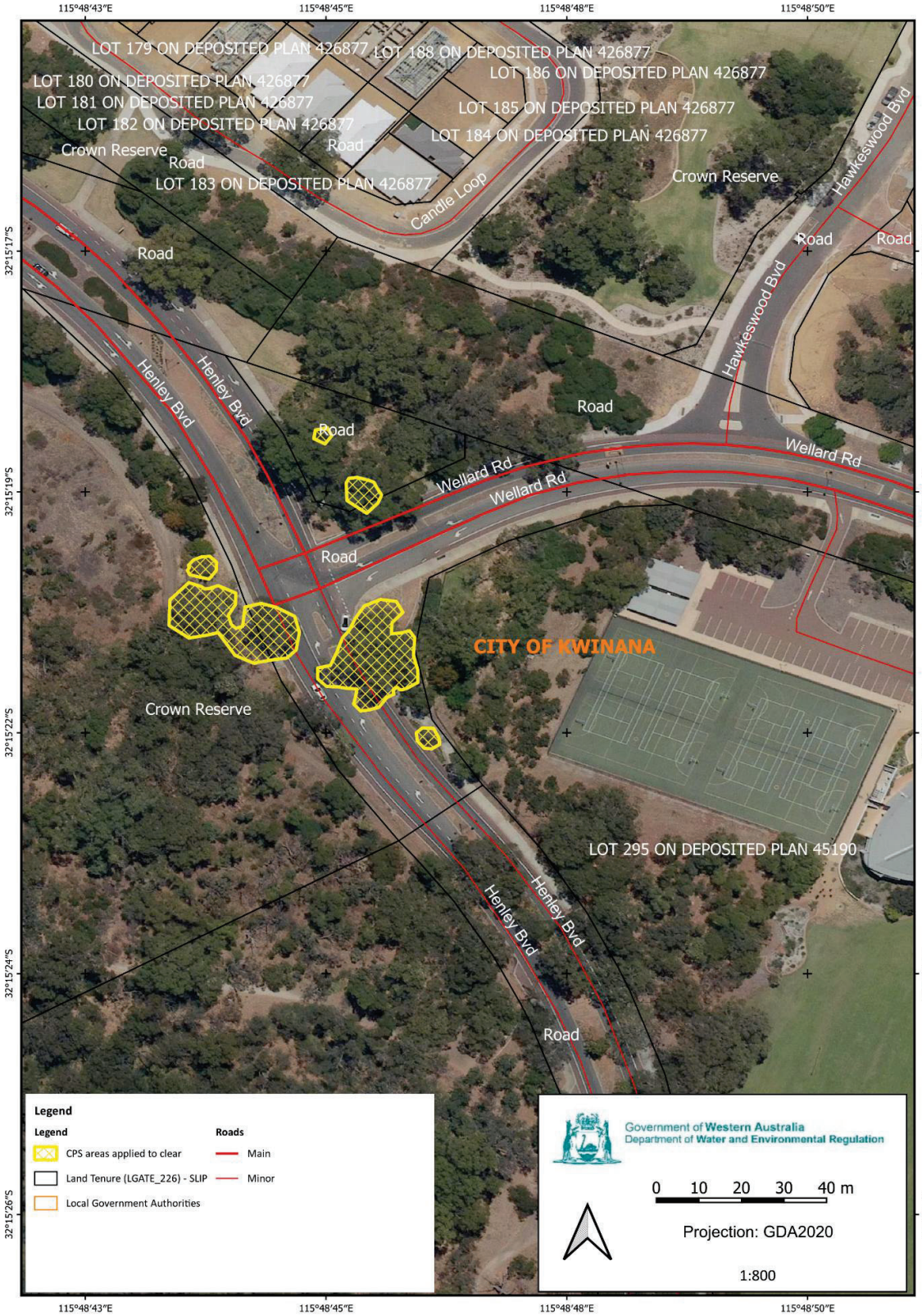


Figure 1: Map of the boundary of the area within which clearing may occur

Figure 2: Map of the boundary of the area (cross hatched red) within which *rehabilitation* and *revegetation* under condition 8 must occur

Schedule 2

Table 1: Completion Criteria

Environmental value	Completion criteria	Monitoring method
Revegetation tubestock survival rate	80% survival rate of total revegetation specimens	Counted annually up until 31 December 2031
Species diversity	Maintain diversity of revegetation to achieve a minimum of 17 local native species within the offset area.	Annually in spring by an environmental specialist until completion criterion has been met and maintained for two years (i.e. three successive monitoring events).
Percentage of weeds present	Weed coverage less than 5% within the offset area	Monitor the offset site for weeds by quadrats annually in spring for a minimum of three years after the last planted tubestock are established.
Declared weeds	No Declared Weeds under the *Biosecurity and Agricultural Management Act 2007* present	Monitor the revegetation site for Declared weeds by quadrats annually in spring for a minimum of three years after the last planted tubestock are established

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 11145/1
Permit type:	Purpose permit
Applicant name:	City of Kwinana
Application received:	19 June 2025
Application area:	9 native trees
Purpose of clearing:	Construction of a roundabout and associated infrastructure
Method of clearing:	Mechanical
Property:	Lot 9500 on Deposited Plan 75385 Lot 3001 on Deposited Plan 58626 (Reserve 50531) Henley Boulevard-Wellard Road reserve (PIN 12263974)
Location (LGA area/s):	City of Kwinana
Localities (suburb/s):	Wellard

1.2. Description of clearing activities

The vegetation proposed to be cleared is nine native trees close to the road reserve around the Wellard Road-Henley Boulevard intersection (see Figure 1, Section 1.5). This is part of a range of black spot road projects within the area of Wellard to improve road safety and enhance transport efficiency on the local road network (City of Kwinana, 2025a).

The area proposed to be cleared is surrounded by existing and expanding residential premises to the north, an independent Kindergarten to Year 12 school to the east and a main distributor road to the west. The Henley Reserve (Reserve 50531) is surrounded by the south to the application area (City of Kwinana, 2025a).

Due to increasing vehicle pressure from surrounding residential development and associated infrastructure (e.g. school), the Wellard Road-Henley Boulevard intersection was identified in 2022-2023 as requiring improvement works to assist with the movement of traffic in and out of the Wellard area. The current intersection is a ‘T’ junction, which experiences severe delays and vehicle standing during peak hours.

The Wellard Road - Henley Boulevard connection is classified as a Distributor A hierarchy road under Main Roads Western Australia (MRWA) road classification, designed to accommodate significant traffic volumes, including 7.3% heavy vehicles (based on the City’s traffic data), such as 19-meter semi-trailers, which are “as-of-right” vehicles for this road type. In preparing a final detailed design for the upgrade of the intersection, City has worked to retain the trees where possible, reducing the required clearing amount to 11 individual trees (9 native) to the extent necessary for the works (City of Kwinana, 2025b).

1.3. Decision on application

Decision:	Granted
Decision date:	12 November 2025
Decision area:	9 native trees, 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 A.

In making this decision, the Delegated Officer had regard for

- the site characteristics (see Appendix C),
- relevant datasets (see Appendix H.1),
- Wellard Road and Henley Boulevard, Wellard – New Roundabout Construction – Supporting information (see Appendix G)
- 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 purpose of the clearing is to improve road safety and enhance transport efficiency on the local road network as a part of a range of black spot road projects within the area of Wellard.

The Delegated Officer also took into consideration that this project is a part of City of Kwinana's range of black spot road projects within the area of Wellard to improve road safety and enhance transport efficiency on the local road network (City of Kwinana, 2025a).

The assessment identified that the proposed clearing will result in:

- the loss of nine (9) native trees that is suitable foraging and roosting habitat for black cockatoos
- the loss of nine (9) trees that are representative of the Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain
- 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

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely to lead to long-term adverse impacts on environmental values and that the impacts of clearing can be minimised and managed to unlikely lead to an unacceptable risk to environmental values. The applicant has suitably demonstrated avoidance and minimisation measures and provided an offset to counterbalance the impacts to the Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain and foraging and roosting habitat for black cockatoos (see Section 4).

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
- revegetate a minimum area of 0.7 hectares of native vegetation within the nearby Henley Reserve (see figure 2) with representative species of the Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain and foraging and roosting species for black cockatoos, to offset the significant impacts remaining after the clearing.

1.5. Site map

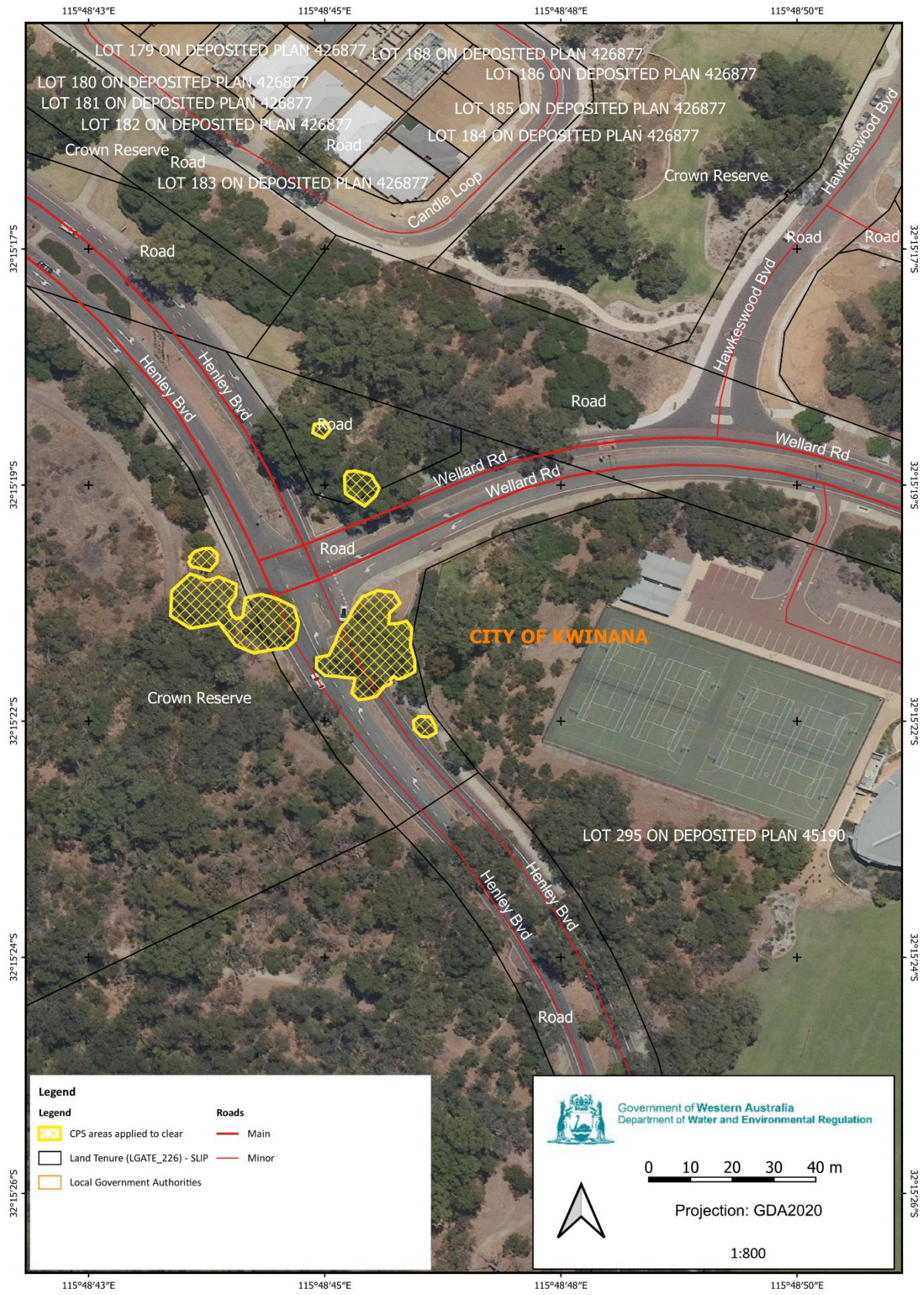


Figure 1 Map of the application area

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

The area cross-hatched red indicates area within which the offset condition apply.

2 Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)

Relevant policies considered during the assessment include:

- *Environmental Offsets Policy* (2011)

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 and mitigation measures

Evidence was submitted by the applicant, demonstrating that the City of Kwinana has considered tree retention as a high priority requirement when preparing the detailed design for the intersection upgrade and attempted to retain the natural features of the area and significant trees. However, the roundabout design identifies the need to remove 11 trees of which 9 trees are native, within the works area that cannot be avoided for the required roundabout construction and associated infrastructure. Three of those trees are dead trees (City of Kwinana, 2025a).

Being the strategic goal as the retain and improve City's streetscapes and open spaces, preserving the trees and greenery that makes Kwinana unique, implies that the trees and biodiversity retention are at the forefront of the city of Kwinana's work and programs. As an attempt to mitigate the impacts, the City has consulted the Arboribus consulting to inspect 44 trees in proximity to the proposed round-a-bout intersection to identify preliminary tree protection considerations to be further developed as part of the proposed construction for the site (see Appendix G). This assessment has recognised 29 trees are identified for the retention and monitoring systems are placed to protect those trees within the duration of the proposed development (City of Kwinana, 2025a).

Additionally, the City has conducted a weed and condition survey of Henley Reserve to review the current condition of the Henley reserve and noted that the reserve is in a degraded condition with high levels of weed infestation. The City has proposed to allocate funding for revegetation and weed management (City of Kwinana, 2025a).

Supporting information implies that City has taken appropriate steps to avoid and mitigate the impacts of the proposed clearing.

On request of further avoidance and mitigation measures, City has responded that the further avoidance and mitigation measures are not possible due to the following reasons:

- Roundabout Design requirements

The roundabout is designed in accordance with MRWA's Supplement to Austroads Guide to Road Design Part 4B: Roundabouts, which mandates accommodation of a 19- meter semi-trailer's swept path (minimum turning radius of 12.5 meters). The proposed roundabout has an absolute minimum central island radius of 12.5 meters, which ensures compliance with safety and operational standards for heavy vehicles while minimising the disturbance footprint.

- Minimum Footprint for works provided

The proposed clearing within the Henley Boulevard- Wellard Road reserve has been carefully limited to the minimum construction footprint necessary to deliver the roundabout, balancing road safety and operational needs with

environmental protection. The design and location of the roundabout have been refined to avoid unnecessary disturbance to key habitat trees (Marri, Jarrah, and Tuart) and to retain as many mature trees as possible outside the construction area. The design maximises the use of the current intersection footprint. This approach avoids the need for additional pavement works that would otherwise have required further vegetation clearing.

As City confirmed, the propose clearing is confined strictly to the functional footprint of the roundabout. Further, no additional clearing is proposed for hazard -free -zones such as sightlines

- Alternative location Analysis outcome

To address environmental concerns, the City has considered several alternative locations and alignments for the roundabout. Each option would result in greater impacts compared to the current proposal, for example:

a. North/West Shift: Would increase canopy loss in the northwest corner, impacting additional black cockatoo foraging habitat and potentially encroaching into the Tuart Woodlands TEC.

b. East Shift: Would not reduce clearing and may require acquisition of land from the adjacent school, introducing social, logistical, and safety constraints.

c. South Shift: Would require additional clearing within Henley Reserve and Tuart woodland TEC, directly impacting high-quality black cockatoo habitat and potential roosting sites.

The current roundabout location represents the least-impact, technically viable option for the intersection upgrade. It achieves compliance with MRWA design standards for a 19-metre semi-trailer while minimizing environmental disturbance to the extent necessary. Key design features include a minimum central island radius of 12.5 metres, an ICD of approximately 34 metres, and a mountable apron to reduce the overall footprint (City of Kwinana, 2025b).

After consideration of avoidance and mitigation measures, it was determined that an offset to counterbalance the significant residual impacts of 0.09 hectares of black cockatoo foraging and roosting habitats and 0.09 hectares of Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain were necessary. In accordance with the Government of Western Australia's *Environmental Offsets Policy* and *Environmental Offsets Guidelines*, these significant residual impacts have been addressed through the conditioning of environmental offset requirements on the permit. The nature and suitability of the offset provided are 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 Appendix D) identified that the impacts of the proposed clearing present a risk to biological values (Fauna and Priority Ecological Communities/PEC). 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 (Biodiversity and Fauna) - Clearing Principles (a) and (b)

Assessment

Available mapping and spatial data indicate that conservation significant ecological communities were located within the application area or immediate surrounds. The tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain is mapped with the application area, and the proposed vegetation is representative of the tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain ecological community, which is listed as a Priority 3 ecological community (PEC) by the Department of Biodiversity, Conservation and Attractions (DBCA). The Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain are a nationally significant ecological community. The ecological community was listed as critically endangered under national environmental law (the *Environment Protection and Biodiversity Conservation Act 1999* or EPBC Act) (DoEE, 2019).

This nationally protected ecological community is comprised of woodlands or forests within which the presence of Tuart (*Eucalyptus gomphocephala*) trees in the uppermost canopy are the primary defining feature. The community also often contains other native trees such as Peppermint, Bull Banksia, Candlestick Banksia or Jarrah, with a substantial diversity of understorey plants. The Tuart Woodlands and Forests are an important part of this providing habitat for a range of animal species, including some that are nationally threatened, such as Black Cockatoo species.

All remaining patches have been disturbed to some degree and are at risk of losing further plant and animal species unless they are conserved and managed to prevent further degradation. Given the high level of past damage to the ecological community and ongoing risk of degradation it faces, the ecological community is likely to be completely lost if it is not protected and restored (DoEE,2019).

Due to absence of the targeted survey and based on the available information on DBCA datasets (see Appendix H.1), it is noted that 0.09 hectares of the proposed clearing is representative of the tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain ecological community which is in Degraded (Keighery, 1994) condition. The City has proposed suitable offset to mitigate the impacts to this ecological community (see section 4). the proposed offset of 0.7 hectares will likely be restored through the proposed revegetation plan and the weed management activities.

According to available datasets there are records of 36 species of conservation listed fauna within the local area (10-kilometre radius). Of these, the application area may contain suitable habitat for up to six species. This presumption is based on the suitability of habitat for these species within the application area and the number of records within the local area:

- Carnaby's cockatoo (Calyptorhynchus latirostris) (endangered)
- Baudin's cockatoo (Calyptorhynchus baudinii) (endangered)
- Forest red-tailed black cockatoo (Calyptorhynchus banksii naso) (vulnerable)
- Quenda (Isoodon obesulus subsp. fusciventer) (Priority 4).
- Chuditch (Dasyurus geoffroii) (vulnerable)
- south-western brush-tailed phascogale (Phascogale tapoatafa wambenger) (Conservation dependant)

The supporting information provided by the City indicates that the proposed clearing of 11 trees includes only nine native trees and from which three trees are considered as dead. From the remaining six native trees, five of the trees are located on the southern side of the Henley Road and it is adjacent to the Henley Reserve. Henley Reserve is a known local foraging and roosting site for black cockatoos with the entire reserve providing suitable foraging trees (Jarrah, Marri, Tuart and Banksia) with recorded roosting areas within the central and southern potion. This reserve is approximately 28 hectares in size and provides a north-south bushland corridor and ecological linkages thorough the suburb of Wellard (City of Kwinana,2025a).

Black cockatoos

The proposed clearing is located within the mapped distribution areas of Carnaby's cockatoo (*Calyptorhynchus latirostris*) (endangered) and forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*) (vulnerable) species Within a 10-kilometre radius of the application area, there are 1,632 records of Carnaby's cockatoo, 6 records of Baudin's cockatoo and 192 records of forest-red tailed black cockatoos, with the closest distance of approximately 0.02, 6.42 and 0.37 kilometres, respectively, from the application area. While habitat requirements for these species of black cockatoo differ, the requirements in general can be categorised as breeding habitat, foraging habitat and night roosting habitat.

Breeding habitat

Suitable breeding habitat for black cockatoos includes trees which either have a suitable nest hollow or are of a suitable Diameter Breast Height (DBH) to develop a nest hollow. For most tree species a suitable DBH is 500 millimetres (Commonwealth of Australia, 2012). From the nine native trees within the proposed clearing area three is considered as dead trees and none of them contains hollows suitable for use by back cockatoos for nesting. City of Kwinana determined that no trees contain hollows that were potentially suitable for use by breeding black cockatoos within the application area (City of Kwinana, 2025a).

Roosting habitat

Night-roosts are usually located in the tallest trees of an area, and in close proximity to both a food supply and a water source (DAFF,2024). According to the available databases, the application area is not mapped as a known roost site. Tall Eucalyptus trees near a permanent watercourse within close proximity to high quality foraging habitat are identified as the trees that provide preferable roosting habitat for the black cockatoos (DAFF,2024). Available database indicates that 24 roosting sites were recorded within the local area (10-kilometre radius within the application area), with the closest roost site approximately 387 metres from the application area. Noting the abundance of foraging habitat and the known roosting sites with high number of records for both Carnaby's and red-tailed black cockatoo species, the proposed clearing is considered to comprise significant roosting habitat for mainly Carnaby's cockatoo (*Calyptorhynchus latirostris*) and Forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*) species.

Noting that Henley Reserve in close proximity to the proposed clearing area, there are enough high-quality vegetation and the water sources outside of the application area. As the vegetation is parkland cleared it is unlikely to be good quality roosting habitat due to the lack of understorey cover and within the road network

Foraging habitat

Food resources within the range of breeding sites and roost sites are important to sustain black cockatoo populations. Foraging resources are therefore, viewed in the context of known breeding and night roosting sites. It is considered that foraging habitat within 6 to 12 kilometres of a known roosting and a breeding site are a significant food source (DAFF,2024). According to the available databases, 24 known black cockatoo roosting sites are mapped within the 10-kilometre radius buffer of the application area. The closest confirmed breeding site is located 10.9 kilometres from the application area. Based on the above, the department's assessment has identified that the trees which are proposed to be cleared may provide potential food sources for black cockatoos within the local area, given the distance to the known roost sites and the confirmed breeding site.
The application area comprises *Corymbia calophylla* (marri), *Eucalyptus Marginata* (Jarra) and *Eucalyptus gomphocephala* (Tuart) over bare ground within the Wellard Road-Henley Boulevard intersection. Noting the presence of primary foraging species and given that the application areas is close proximity to the Henley reserve which is known for high quality foraging and roosting habitats, the application area may provide suitable medium to high quality foraging and roosting habitat for black cockatoos. It is considered that 0.09 hectares of native vegetation within the application area is likely to provide medium to high quality foraging and roosting habitat for mainly Carnaby's cockatoo (*Calyptorhynchus latirostris*) and forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*) species of black cockatoos, in close proximity to other known roosting and breeding habitat.

It is therefore considered that the proposed clearing is likely to have a significant residual impact on foraging and roosting habitat for black cockatoos.

Quenda

Quenda prefers dense scrubby, often swampy, vegetation with dense cover up to one metre high. It also occurs in woodlands and may use less ideal habitat where this habitat occurs adjacent to the thicker, more desirable vegetation (Department of Environment and Conservation (DEC), 2012).

This species has previously been recorded approximately 90 metres from application area. Supporting document provided by the City of Kwinana indicates it is unlikely to have ground dwelling fauna due to the lack of suitable habitat and due to the highly modified urban environment (City of Kwinana, 2025a).

Noting the lack of preferred dense riparian habitat within the application area and extent of potentially suitable habitat within the local area, including within the Henley Reserve, the proposed clearing is unlikely to impact on significant habitat for this species.

Chuditch

The chuditch is the largest carnivorous marsupial within Western Australia. They are considered as Vulnerable under the Environment Protection and Biodiversity Conservation Act 1999 and the Biodiversity Conservation Act 2016. Chuditch uses a range of habitats including forest, mallee shrublands, woodland and desert, with the densest populations found in riparian jarrah forest. Chuditch requires adequate numbers of suitable den and refuge sites (horizontal hollow logs or earth burrows) and sufficient prey biomass (large invertebrates, reptiles and small mammals) to survive. They are capable of travelling long distances and have large home ranges, and even at their most abundant, chuditch are generally present in low numbers. For this reason, they require habitats that are of a suitable size and not excessively fragmented (DCCEEW, 2024). Given that the proposed clearing area is within a highly developed area and due to absence of dense vegetation and hollow bearing logs, it is unlikely to provide significant habitat for this species.

Southwestern brush-tailed phascogale

They inhabit a variety of forest types. Ideal habitat for this species consists of dry sclerophyll forest and open woodland (jarrah, marri, and mixed jarrah karri) that contain hollow bearing trees and sparse ground cover. Their many nesting sites include hollow tree limbs, rotten stumps and even birds' nests. In the south-west, this species is typically found in jarrah forest (Scarff, et al., 1998; Rhind, 2004). The application area is unlikely to provide suitable habitat due to absence of ground cover and the urban development. However, this species could use the application area for dispersal. Although the surrounding vegetation is connected, the application area alone consists of scattered trees with open canopies, increasing the chance of predation. Based on the above, it is not likely that this species would prefer using the application area, noting the availability of better condition vegetation adjacent to the application area to the south that would provide better habitat connectivity for the phascogale.

Conclusion

Based on the above assessment, the proposed clearing will impact 0.09 hectares that is representative of the Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain and 0.09 hectares of foraging and roosting habitat for Carnaby and Forest red tailed back cockatoos and constitutes a significant residual impact. In accordance with the Environmental Offsets Policy (2011) and Environmental Offsets Guidelines (2014), this significant residual impact has been addressed through the conditioning of environmental offset requirements, as outlined under Section 4.

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.
- Provide an offset as outlined under Section 4.

3.2.2. Significant remnant vegetation - Clearing Principles (e)

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 Environmental Protection Authority (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).

The mapped vegetation community over the application area is the Cottesloe Complex-Central and South, which is described as mosaic of woodland of *Eucalyptus gomphocephala* (Tuart) and open forest of *Eucalyptus gomphocephala* (Tuart) - *Eucalyptus marginata* (Jarrah) - *Corymbia calophylla* (Marri); closed heath on the Limestone outcrops (Government of Western Australia, 2019). This community is consistent with the national objectives and targets for biodiversity conservation in Australia, with 32.16% vegetation remaining (Table B.2.).

The local area (10-kilometre radius from the centre of the area proposed to be cleared) has been highly cleared with 29.57% native vegetation remaining, which is consistent with the 10 per cent threshold level within the Perth Metropolitan region. Considering the small area proposed to be cleared within the local area (0.09 hectares), the proposed clearing is unlikely to significantly reduce the remnant extent within the local area.

Therefore, the proposed clearing is not considered as the significant remnant vegetation in an area that has been extensively cleared.

Conclusion

The proposed clearing is unlikely to significantly impact on the remnant vegetation extent as well as conservation areas nearby. The adjacent remnant vegetation may be impacted by the increasing risk of weed or dieback spreading.

Conditions

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

- Weed and dieback management.

3.3. Relevant planning instruments and other matters

The City of Kwinana confirmed that the Lot 9500 on Deposited Plan 75385 is now named as a road reserve under the City's responsibility (City of Kwinana,2025a).

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

4 Suitability of offsets

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

- 0.09 hectares of black cockatoo foraging and roosting habitats
- 0.09 hectares of Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain

The City has proposed an environmental offset to address the above impacts, as detailed below. The Delegated Officer determined in this instance that it was appropriate to consider an offset to counterbalance the significant residual impacts noting the extent of these impacts, and the applicants demonstrated efforts to avoid, minimise and mitigate the environmental impacts of the proposed clearing, in accordance with the WA Environmental Offsets Guidelines (2014).

Proposed offset

The City proposed an environmental offset to counterbalance of the above impacts, comprising:

- Revegetation and rehabilitation of 0.7 hectares of land from completely degraded to degraded condition to restore it to a good vegetation condition through on ground management (weed management) and revegetation and rehabilitation activities.

The propose offset area is located within the northern portion of Henley Reserve (Reserve 50531) adajacent to the proposed round about development at Wellard Road-Henley Boulevard intersection. The site has been seleted as it is representative of the Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain and the known roosting and foraging site for the three species of black cockatoos. Additionaly, the site is located near the City's recorded Carnaby's black cockatoo (*Zanda latirostris*) and forest red tailed black cockatoo (*Calyptorrhynchus banksii naso*) roosting locations within the larger Henley Reserve (KWIWELR001 and KWIWELR002) (City of Kwinanna, 2025b).The site is suitable for tree planting with some large open areas devoid of canopy cover and connected to adjoining Tuart canopy within the Henley Reserve.

The Delegated Officer considers that the proposed offset more than adequately counterbalances the significant residual impacts listed above. The Delegated Officer had consideration for the Government of Western Australia's Offsets Policy (2011) and Offset Guidelines (2014), and WA Environmental Offsets Metric in making this determination.

The justification for the values used in the offset calculation is provided in Appendix F.

End

Appendix A. Details of public submissions

Summary of comments	Consideration of comment
The roundabout should be made smaller so to fit within the intersection and not disturb the surrounding trees	Avoidance and minimisations measures have been considered by the City. Please refer section 3.1.
If trees are being cleared, they should be relocated in their full pieces, undamaged and unharmed, to a conservation area nearby	This is for the City's consideration. The City has proposed to rehabilitate a nearby reserve by planting similar species being cleared.
Impacts to critical habitat for black cockatoos	Please refer section 3.1 and 3.2.1 and Section 4. The City has provided an offset to mitigate impacts to this environmental value.
Impacts to TEC	Please refer section 3.1 and 3.2.1 and Section 4. The City has provided an offset to mitigate impacts to this environmental value.
Impacts to significant remanent vegetation	Please refer section 3.1 and 3.2.2. The application area is consistent with the modified target for constrained areas.
Impacts to nearby conservation area	Noting the build up nature of the proposed clearing, it is considered unlikely that the proposed clearing will have any further impact on ecological values of the conservation reserves in the local area. Weed and dieback management measures will mitigate any potential impacts. Additionally the City has proposed rehabilitation of a 0.7 hectare area within nearby Henley reserve.

Appendix B. Additional information provided by the applicant

Since the application was accepted for assessment on 21 July 2025, the following additional information was provided by the applicant:

Summary of comments	Consideration of comment
The applicant provided a rehabilitation offset in response to a formal Request for Further Information issued by DWER.	Refer section 4 Suitability of offsets on consideration of the offset proposal by the department, in mitigating significant residual impacts of the proposed clearing.

Appendix C. Site characteristics

C.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an approximately 16-hectare isolated patch of native vegetation in the intensive land use zone of Western Australia. It is surrounded by the road infrastructure, the residential properties and the associated infrastructure close to the Wellard Road-Henley Boulevard intersection. The proposed clearing area is part of a small, isolated remnant in a highly cleared landscape.

Characteristic	Details
	Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 29.57 per cent of the original native vegetation cover.
Ecological linkage	The application area does not occur within mapped ecological linkages, and it is surrounded by developed urban area including residential properties. The closest mapped ecological linkage is Perth Regional Ecological Linkage approximately 1 kilometre away from both west and east direction of the application area.
Conservation areas	There are no mapped conservation areas within the application area. The closest mapped conservation area is Bush Forever area, located approximately 0.844 kilometres west of the application area.
Vegetation description	Photograph and supporting information supplied by the applicant indicate that the vegetation within the proposed clearing area consists of 11 individual trees of which nine are native. Representative photos and supporting information are available in Appendix G. This is consistent with the mapped vegetation type of Cottesloe Complex-Central and South, which is described as mosaic of woodland of *Eucalyptus gomphocephala* (Tuart) and open forest of *Eucalyptus gomphocephala* (Tuart) - *Eucalyptus marginata* (Jarrah) - *Corymbia calophylla* (Marri); closed heath on the Limestone outcrops. *The mapped vegetation type retains approximately 32.16 per cent of the original extent (Government of Western Australia, 2019*
Vegetation condition	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in completely degraded (Keighery, 1994) – condition, described as: • 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. The full Keighery (1994) condition rating scale is provided in Appendix E. Representative photos and supporting information are available in Appendix G.
Climate and landform	The highest mean maximum temperature is in February at 31.8°C, the lowest is in September at 16.7°C. The average annual rainfall is 757.7mm in 2024
Soil description and land degradation risk	The soil is mapped as Spearwood S2a Phase (211Sp__S2a), described as Lower slopes (1-5%) of dune ridge with moderately deep to deep siliceous yellow-brown sands or pale sands with yellow-brown subsoils and minor limestone outcrop. The mapped soil type has a high risk of land degradation risk resulting from wind erosion. However, the land degradation risk is minimal from other factors (DPIRD, 2019).
Waterbodies and Hydrogeography	The application area is in close proximity to a conservation category geomorphic wetland in Swan Coastal Palin. The wetland is classified as Sumpland and which is approximately 0.155 kilometres south to the application area. However, the proposed clearing does not intersect any watercourses or wetlands. A part of the application area is within a terrestrial groundwater dependant ecosystem (Terrestrial GDE) and in close proximity to a groundwater dependant aquatic ecosystem.

Characteristic	Details
	The application area falls within Cockburn Groundwater Area a proclaimed under the Rights in Water and Irrigation Act 1914 (the RIWI Act).
Flora	The supporting information and the photograph of the proposed clearing indicates that the application area is within the highly modified urban environment. Additionally, application form states that the proposed clearing area is within the currently managed road verge with mulch and small areas of planted *Dianella revoluta* (Flax Lily)
Ecological communities	The desktop assessment identified that the closest state-listed threatened ecological community (TEC) is an occurrence of Sedgelands in Holocene dune swales of the southern Swan Coastal Plain (floristic community type 19 as originally described in in Gibson et al. 1994) TEC, approximately 3.38 kilometres southwest of the application area. The closest priority ecological community (PEC) is an occurrence of the Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain, within the application area, which is a state listed priority 3 ecological community, listed as critically endangered under the federal EPBC Act.
Fauna	The desktop assessment identified a total of 36 conservation significant fauna species that had previously recorded within the local area. These include 23 bird species from which 13 are migratory species, five mammals, five reptiles and three invertebrates. The closest record is an occurrence of a Carnaby cockatoo (*Zanda latirostris*), approximately 0.02 kilometres away from the application area.

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	1,501,221.93	579,813.47	38.62	222,916.97	14.85
Vegetation complex					
Cottesloe Complex-Central and South	45,299.61	14,567.87	32.16	6,606.12	14.58
Local area					
10km radius	26036.79	7699.79	29.57	-	-

*Government of Western Australia (2019a)

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]
Zanda latirostris	EN	Y	Y	0.02	1632	N/A
Zanda baudinii	EN	Y	Y	6.42	6	N/A
Calyptorhynchus banksii naso	VU	Y	Y	0.37	192	N/A
Dasyurus geoffroii	VU	Y	Y	5.66	12	N/A

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]
Isoodon fusciventer	P4	Y	Y	0.09	5292	N/A
Phascogale tapoatafa wambenger	CD	Y	Y	5.34	48	N/A

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

C.4. Ecological community analysis table

Community name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain (Tuart woodlands)	P3	Y	Y	Y	0	126	N/A

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

C.5. Land degradation risk table

Risk categories	***Land Unit 1***
Wind erosion	H2: >70% of map unit has a high to extreme wind erosion risk
Water erosion	L1: <3% of map unit has a high to extreme water erosion risk
Salinity	L1: <3% of map unit has a moderate to high salinity risk
Subsurface Acidification	L2: 3-10% of map unit has a high subsurface acidification risk
Flood risk	L1: <3% of the map unit has a moderate to high flood risk
Water logging	L1: <3% of map unit has a moderate to very high waterlogging risk
Phosphorus export risk	M1: 10-30% of map unit has a high to extreme phosphorus export risk

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 area proposed to be cleared does contain locally significant ecological communities and habitats, including habitats for all three black cockatoo species and mapped occurrence of the Tuart (*Eucalyptus gomphocephala*) woodland s and forest of the Swan Coastal Swan (Priority 3) ecological community.	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."*	At variance	Yes *Refer to Section 3.2.1, above.*

Assessment against the clearing principles	Variance level	Is further consideration required?
Assessment: The area proposed to be cleared contains significant foraging and roosting habitats for conservation significant fauna species.		
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 comprises 11 individual trees (nine native) within the City managed road verge with mulch and small areas of planted *Dianella revoluta* adjacent to residential properties and Wellard Road-Henley Boulevard intersection and does not include any native mid or understory species. Also, City states that no rare flora are recorded within the project area. Therefore, the area proposed to be cleared is unlikely to contain significant habitat for any threatened flora species listed under the BC Act.	Not likely to be at variance	No
Principle (d): *"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."* Assessment: The area proposed to be cleared does not contain species that can indicate a threatened ecological community (TEC) listed under the BC Act, however is representative of the Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain, within the application area, which is a state listed priority 3 ecological community, listed as critically endangered under the federal EPBC Act.	At variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: The extent of native vegetation in the local area is less than the 30% threshold set by the national objectives and targets for biodiversity conservation in Australia. However, it is within the Metropolitan Region Scheme which is subject to the EPA modified objective of 10% vegetation retention within a constrained area. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area	Not likely to be at variance	Yes *Refer to Section 3.2.2, above.*
Principle (h): *"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."* Assessment: Given that there is no conservation area adjacent to the application area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas	Not likely to be at variance	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: There are no wetlands or watercourses within the application area, and supporting information provided by the city does not indicate that the proposed clearing area includes riparian vegetation (City of Kwinana, 2025). Therefore, the proposed clearing is unlikely to impact on an environment associated with a watercourse or wetland.	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The application area is mapped as the Spearwood S2a Phase, which is mapped as having a low risk of water erosion, nutrient export, and salinity. However, 70 percent of this soil unit is mapped as having a high to extreme risk of wind erosion. Noting the size of the application area and that it comprises scattered native vegetation around the existing Wellard Road-Henley Boulevard intersection, bordered by remnant vegetation within the Henley Reserve to the south, significant wind erosion is unlikely. Noting the final land use is for road infrastructure development which will not leave the bare earth exposed to weather, the impacts will be in short-term and the proposed clearing is unlikely to cause appreciable land degradation.	Not likely to be at variance	No
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: Given no watercourses or wetlands are recorded within or adjacent to the application area, the proposed clearing is unlikely to impact on surface or groundwater quality. Noting that a conservation category geomorphic wetland in Swan Coastal Palin is in close proximity to the proposed clearing area which is classified as Sumpland, it is unlikely that this wetland will be impacted due to the minor extent of clearing within the area of already developed road infrastructure and other developments.	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: 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.	Not likely to be at variance	No

Appendix E. Vegetation condition rating scale

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

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

Measuring vegetation condition for the 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.

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

Appendix F. Offset calculator value justification

F.1 Tuart woodlands and forests of the Swan Coastal Plain PEC

WA Environmental Offsets Calculator
Rationale for scores used in the offset calculator

Calculation	Score (Area)	Rationale
Conservation significance		
Description	Native vegetation that is representative of the Tuart woodlands and forests of the Swan Coastal Plain PEC	The proposed clearing will impact on 0.09 hectares of native vegetation that is representative of the Tuart woodlands and forests of the Swan Coastal Plain PEC
Type of environmental value	Ecological community	The Tuart Woodlands ecological community is listed as a threatened ecological community under the Commonwealth EPBC Act and considered a priority ecological community by DBCA.
Conservation significance of environmental value	Rare/threatened species - endangered	The Tuart Woodlands TEC is listed as Critically Endangered under the EPBC Act and is considered a Priority 3 ecological community in Western Australia by DBCA. Therefore, the highest level of threat has been applied for this field.
Landscape level value impacted	Yes/No	Yes- Impacts to Tuart woodlands in Swan Coastal Plain
Significant impact		
Description	Tuart woodland TEC	Removal of nine (9) nine native trees which are representative of Tuart woodland TEC
Significant impact (hectares)	0.09	Based on information available from the supporting information (City of Kwinana, 2025) the proposed clearing comprises 0.09 ha of Tuart woodland TEC that contains canopy of *Eucalyptus gomphocephala* (Tuart), *Corymbia calophylla* (Marri) and *Eucalyptus marginata* (Jarrah) and meets the key diagnostic criteria and condition thresholds to be considered representative of the Commonwealth listed TEC and state PEC. Therefore, the total area of native

Calculation	Score (Area)	Rationale
		vegetation that is representative of the Tuart Woodlands TEC is 0.09 hectares.
Quality (scale)	6	Based on information available from the supporting information (City of Kwinana, 2025) the proposed clearing comprises 0.09 ha of Tuart woodland TEC that contains canopy of *Eucalyptus gomphocephala* (Tuart), *Corymbia calophylla* (Marri) and *Eucalyptus marginata* (Jarrah) within the surrounding areas of Henley Reserve. Henley Reserve has been identified as a known foraging and roosting location for Carnaby's black cockatoos, and that forest red tailed black cockatoos are also likely to use the local area and greater Henley Reserve for foraging and perching due to the presence of suitable habitat trees with the presence of medium to high quality black cockatoos foraging habitat (with preferred foraging species including marri, jarrah and tuart) within the proposed clearing area. The Tuart Woodlands TEC within the application area also provides habitat for significant fauna, including foraging habitat for Carnaby's cockatoo and forest red-tailed black cockatoo.
Rehabilitation credit		
N/A	N/A	Onsite revegetation will not be taking place.
Offset		
Description	Rehabilitation	Rehabilitation consisting of vegetation representative of the Tuart Woodland TEC within the adjacent reserve (Henley Reserve) and changing the vesting from recreation to conservation over the Rehabilitation areas.
proposed offset (area in hectares)	0.7	Rehabilitation of 0.7 hectares of native vegetation representative of the Tuart Woodland TEC will counterbalance the significant residual impacts by more than 100 per cent.
Current quality of offset site	4	Assuming the vegetation within the proposed Rehabilitation site is in degraded condition.
Future quality WITHOUT offset	4	It is not expected that the quality of the vegetation within a suitable offset site would change in the absence of the offset.
Future quality WITH offset	6	In fill planting to improve the quality to good condition, to improve the condition of an existing Tuart TEC, following a detailed revegetation plan.
Time until ecological benefit (years)	12	It will take at least 10 years for the Rehabilitation to increase the quality of the offset site, with a time lag of 2 applied to commence Rehabilitation.
Confidence in offset result (%)	80	There is a moderate level of confidence that the offset will achieve the predicted result.

Calculation	Score (Area)	Rationale
Duration of offset implementation (maximum 20 years)	20	The offset site will be conserved in perpetuity under a conservation covenant. 20 years is the maximum value associated with this field.
Time until offset site secured (years)	1	Expected it would take at least one year to secure the offset site
Risk of future loss WITHOUT offset (%)	15	Given that the offset site is vested for public recreation, there is a moderate risk that the offset site could be developed in the future.
Risk of future loss WITH offset (%)	10	Noting the vesting change from public recreation to conservation, the future conservation of the offset site would result in a substantial increased security and substantially reduce the risk of loss. The risk of catastrophic events (fire, dieback, etc.) remain.

F.2 Black Cockatoo Foraging and Roosting Habitats

Calculation	Score (Area)	Rationale
Conservation significance		
Description	Black cockatoo foraging and roosting habitat	Application area contains moderate to high quality foraging and roosting habitat for *Zanda latirostris* (Carnaby's black cockatoo and *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo).
Type of environmental value	Species (flora/fauna)	Known foraging and roosting habitat for Carnaby's, Baudin's and forest red-tailed black cockatoos.
Conservation significance of environmental value	Rare/threatened species - endangered	Carnaby's and Baudin's cockatoo are listed as Endangered and forest-red tailed black cockatoo is listed as Vulnerable under both the EPBC Act and BC Act.
Landscape level value impacted	Yes/No	Yes- Impacts to BC habitats in the Swan Coastal Plain
Significant impact		
Description	Black cockatoo foraging and roosting habitat	Removal of nine (9) native trees which contains *Corymbia calophylla* (marri), Eucalyptus *gomphocephala* (Tuart), and *Eucalyptus marginata* (Jarrah), which provide foraging and roosting habitat for black cockatoos.
Significant impact (hectares)	0.09	Based on information available from the supporting information (City of Kwinana,2025) the proposed clearing comprises 0.09 ha of moderate to high quality foraging and roosting habitat for all three species of black cockatoos

Calculation	Score (Area)	Rationale
Quality (scale)	7	Foraging and roosting habitat within the application area is comprised nine native trees, which are preferred foraging and roosting species for black cockatoos. 24 roosting sites were recorded within the 10 kilometres local area with the closest roost site approximately 387 meters from the application area.
Rehabilitation credit		
N/A	N/A	Onsite revegetation will not be taking place.
Offset		
Description	Rehabilitation	Rehabilitation of completely degraded areas with minimum black cockatoo foraging and roosting value, to improve the vegetation to provide good quality foraging and roosting habitat for black cockatoos.
proposed offset (area in hectares)	0.44	Rehabilitation of 0.44 hectares of native vegetation representative of foraging and roosting habitats for Black cockatoos
Current quality of offset site	5	Offset site is in degraded to Completely Degraded (Keighery, 1994) condition and contains tree canopy of *Corymbia calophylla* (marri), Eucalyptus *gomphocephala* (Tuart), and *Eucalyptus marginata* (Jarrah) with *Banksia Grandis* (Swamp Banksia), *Banksia menziesii* (Firewood Banksia) and *Hakea prostrata* in the upper canopy
Future quality WITHOUT offset	5	The quality of the offset site is not likely to change without revegetation/rehabilitation.
Future quality WITH offset	7	It is assumed that in fill planting to improve the quality of the Rehabilitation site from degraded condition to good condition, which requires on ground management (weed management) and Rehabilitationn to improve the quality of the existing foraging and roosting habitats, following a detailed revegetation plan.
Time until ecological benefit (years)	17	It is assumed that the benefits of Rehabilitation of black cockatoos foraging and roosting habitat will be available after 15 years, with a 2 year time lag for rehabilitation to commence .
Confidence in offset result (%)	80	There is a moderate level of confidence that the offset will achieve the predicted result.
Duration of offset implementation (maximum 20 years)	20	The offset will be implemented in perpetuity. The maximum value of 20 years has been applied.
Time until offset site secured (years)	1	Expected it would take at least one year to secure the offset site

Calculation	Score (Area)	Rationale
Risk of future loss WITHOUT offset (%)	15	Given that the offset site is vested for public recreation, there is a moderate risk that the offset site could be developed in the future.
Risk of future loss WITH offset (%)	10	Noting the vesting change from public recreation to conservation, the future conservation (in perpetuity) of the offset site would result in a substantial increased security and substantially reduce the risk of loss. The risk of catastrophic events (fire, dieback, etc.) remain.

Appendix G. Photographs of the vegetation

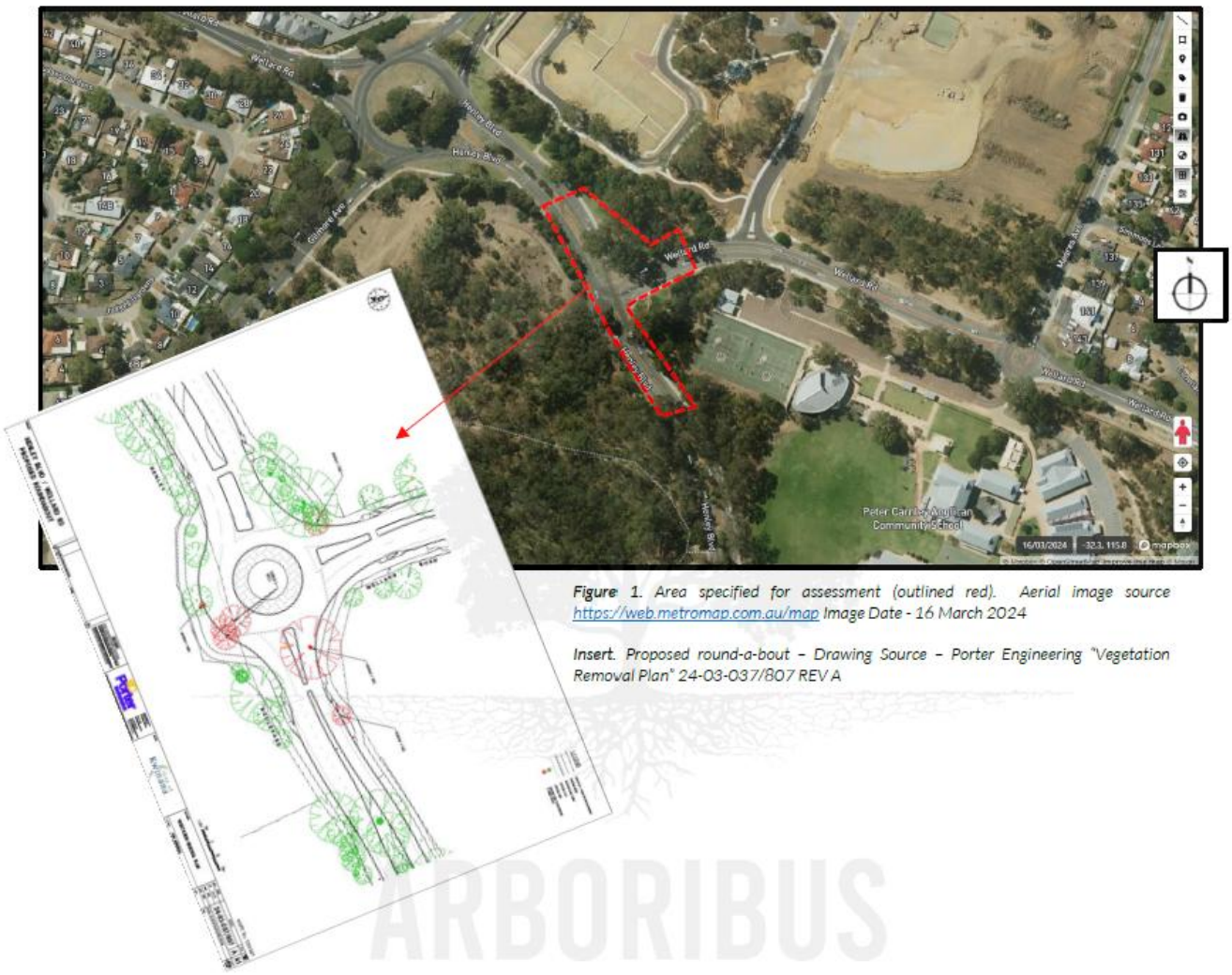


Figure 1. Area specified for assessment (outlined red). Aerial image source https://web.metromap.com.au/map Image Date - 16 March 2024

Insert. Proposed round-a-bout – Drawing Source – Porter Engineering "Vegetation Removal Plan" 24-03-037/807 REV A

Figure 2: the boundary of the arboriculture inspection

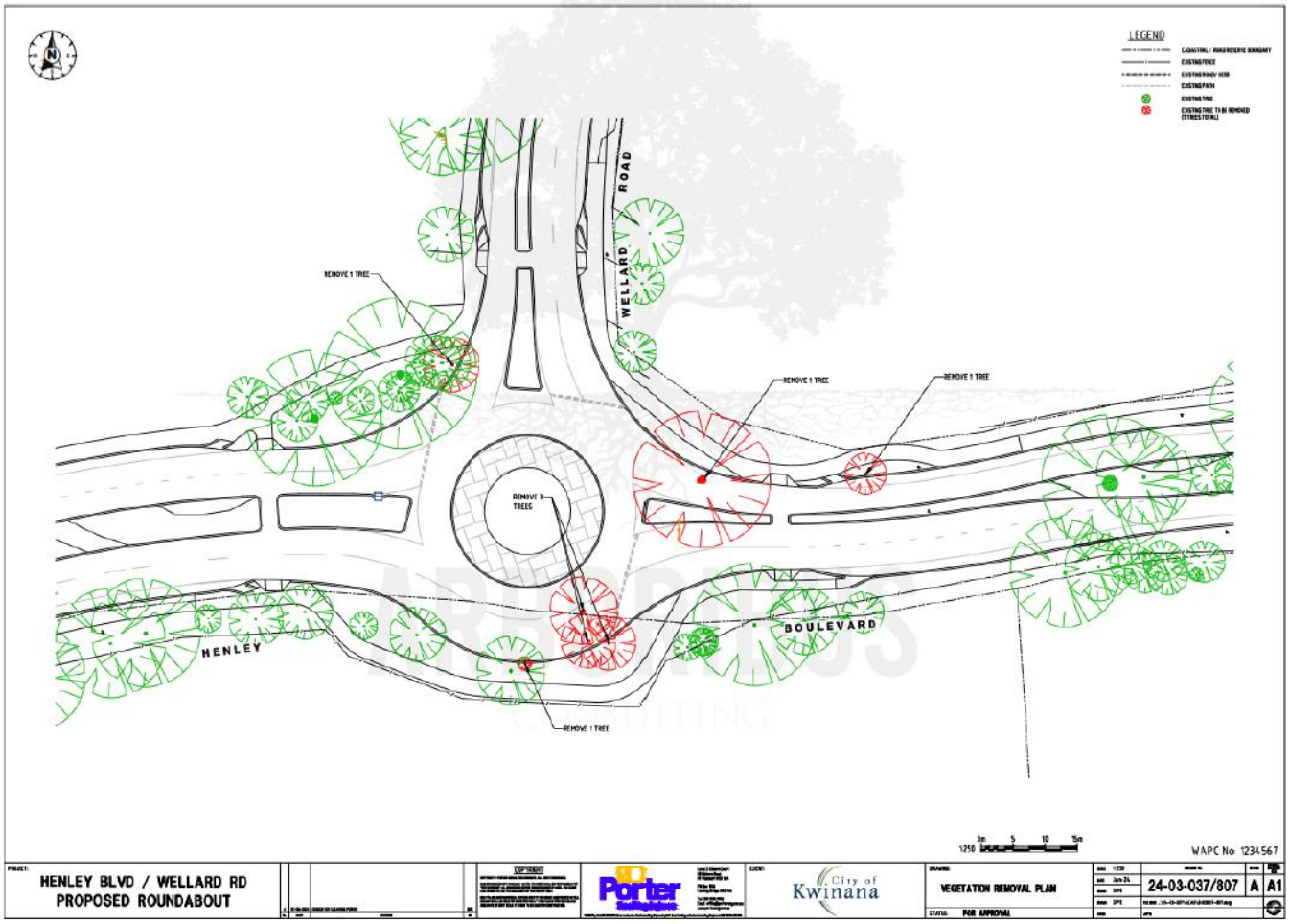


Figure 3: Vegetation removal plan prepared by Arboribus consulting

Tree 1: A00519

Corymbia calophylla (Marri)

This specimen is approximately 13m high with a diameter at breast height of 0.44m. The overall health of the tree is poor with the tree health appearing to be in a state of decline. No hollows visible.

Tree 2: A00520

Eucalyptus marginata (Jarrah)

This specimen is approximately 13 metres in height. However, the tree is dead and shows no signs of regeneration. No hollows visible.

Tree 3: A00521

Corymbia calophylla (Marri)

This specimen is approximately 20 metres in height and in good health. The diameter at breast height is 0.94m. No hollows visible.

Tree 4: A00522

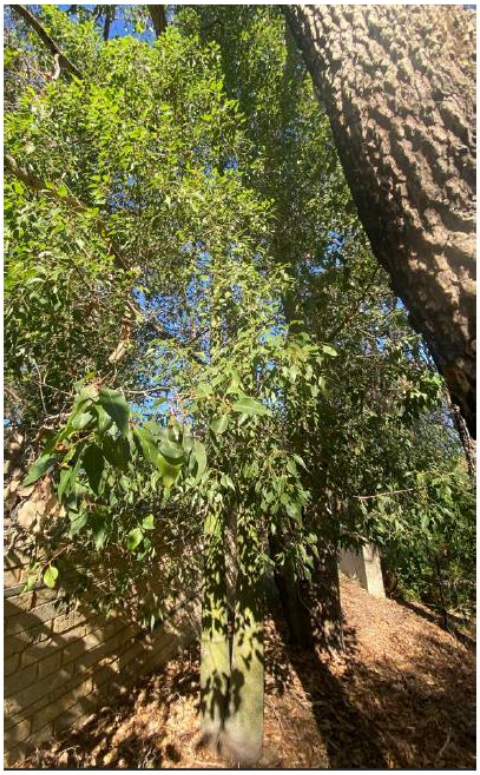
Corymbia calophylla (Marri)

This specimen comprises two trunks, is approximately 20 metres in height and in reasonable health. The diameter at breast height is 0.61m. No hollows visible.

Tree 5: A00523

Brachychiton populneus (Kurrajong)

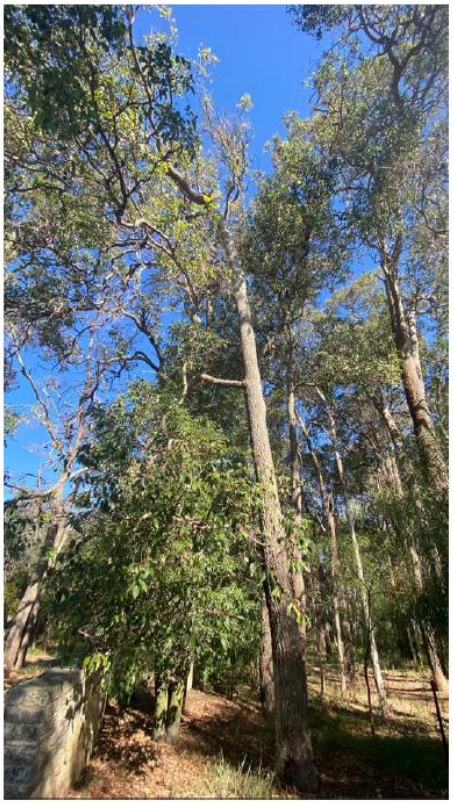
This specimen is approximately 9 metres in height and in good condition. The diameter at breast height is 0.40m.



Tree 6: A00524

Corymbia calophylla (Marri)

This specimen is approximately 11 metres in height and in good health. The diameter at breast height is 0.40m. No hollows visible.



Tree 7: A00525

Brachychiton acerifolius (Illawarra Flame Tree)

This specimen is approximately 10 metres in height and in good health. The diameter at breast height is 0.35m.

Tree 8: A00538

Eucalyptus marginata (Jarrah)

This specimen is approximately 3m in height. However, the tree is dead and shows no signs of regeneration.

Tree 9: A00546
Eucalyptus marginata (Jarrah)
This specimen is approximately 10 metres in height. However, the tree is dead and shows no signs of regeneration.

Tree 10: A00552
Eucalyptus gomphocephala (Tuart)
This specimen is approximately 22m high, is in good overall health with a maximum diameter trunk of 1.7m (two stemmed).

Tree 11: A00553
Eucalyptus marginata (Jarrah)
This specimen is approximately 8m in height and is in poor condition with evidence of canopy decline. No hollows visible.

Figure 4: Representative photographs and the description of the proposed clearing trees

Appendix H. Sources of information

H.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- 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)

H.2. References

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