

Supporting documentation for a Clearing Permit Application  
for Ocean Drive, Bunbury.

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Prepared for the City of Bunbury  
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## 1 Background

Ecoedge was engaged by the City of Bunbury (the City) in October 2017 to prepare a clearing permit application and associated supporting documentation for the clearing of four tuart (*Eucalyptus gomphocephala*) trees, one WA Peppermint (*Agonis flexuosa*) tree, and individual shrubs of *Acacia lasiocarpa*, *Agonis flexuosa*, *Alyxia buxifolia*, *Jacksonia furcellata*, *Leucopogon sp.*, *Phyllanthus calycinus*, *Spiridium globulosum* along Ocean Drive in Bunbury.

The City proposes to widen a ~2.5 km section of the road between Hastie Street in the north and Washington Avenue in the south to allow for the inclusion of two bicycle lanes (**Figure 1**). The clearing is required in order to allow the construction of the bicycle lanes.

### 1.1 Requirement for the Bicycle Lane

The City undertook planning for a bicycle path network in the late 2000s. This work culminated in the Bicycle Plan, prepared by Cardo, Eppell, Olsen in 2010. In that plan, a major component of the City's proposed commuter bicycle network is the proposed Dalyellup-Bunbury-Eaton cycleway. This infrastructure is intended to form the main backbone for commuter cycling and to create a high quality, efficient and safe path to the Bunbury CBD from outlying residential suburbs. The section of Ocean Drive between Hastie Street and the Tuart Forest – incorporating the proposed clearing area - was identified in the Bicycle Plan as requiring upgrading in order to provide safe bicycle access.

### 1.2 Proposal

The proposed Ocean Drive bicycle lane constructions works will necessitate the removal of four tuart (*Eucalyptus gomphocephala*) trees, one WA Peppermint (*Agonis flexuosa*) tree, two *Acacia lasiocarpa* shrubs and individual shrubs of *Agonis flexuosa*, *Alyxia buxifolia*, *Dianella revoluta*, *Jacksonia furcellata*, *Leucopogon sp.*, *Phyllanthus calycinus*, *Spiridium globulosum*. The clearing location is shown in **Figure 2**; the five trees requiring clearing are identified with coloured stars on **Figure 3**. The tree marked with the red star has a DBH >50 cm (see Section 1.5.2). All four other trees have DBH <50 cm.

A total of five trees and nine shrubs would be cleared under the proposal (totalling 434.9 m<sup>2</sup>), removed individually with a chainsaw. Tree stumps would be dug out using an excavator. It is proposed that the works would be undertaken in January 2018 by specialist operators from South West Tree Safe.

### 1.3 Actions taken to limit impacts from the Proposal

Most of the remnant native vegetation within the proposed road widening and re-alignment footprint occurs on the western side of the existing road, associated with the Maidens Reserve. The City has minimised as much as possible the amount of clearing required by designing the works to ensure that the majority of widening required to accommodate the bicycle lane occurs on the eastern side of the road reserve, which is primarily devoid of native vegetation.

The use of skilled, experienced operators to carry out the clearing works will minimise any off-target and or unnecessary damage.

## 1.4 Vegetation within the Study Area

### 1.4.1 Desktop assessment

Vegetation within the proposed clearing area was mapped by Heddle *et al.* (1980) as the Quindalup Complex, 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 *M. lanceolata* - *Callitris preissii* and the closed scrub of *Acacia rostellifera*.' Over 60% of the original extent of this vegetation complex remains and it is well represented in the conservation estate, with 23.9% in formal and informal reserves (Department of Environment and Conservation, 2007). Both these percentages are above targets stated by the Commonwealth government and the Environmental Protection Authority (EPA) (Environment Australia, 2001; EPA, 2006).

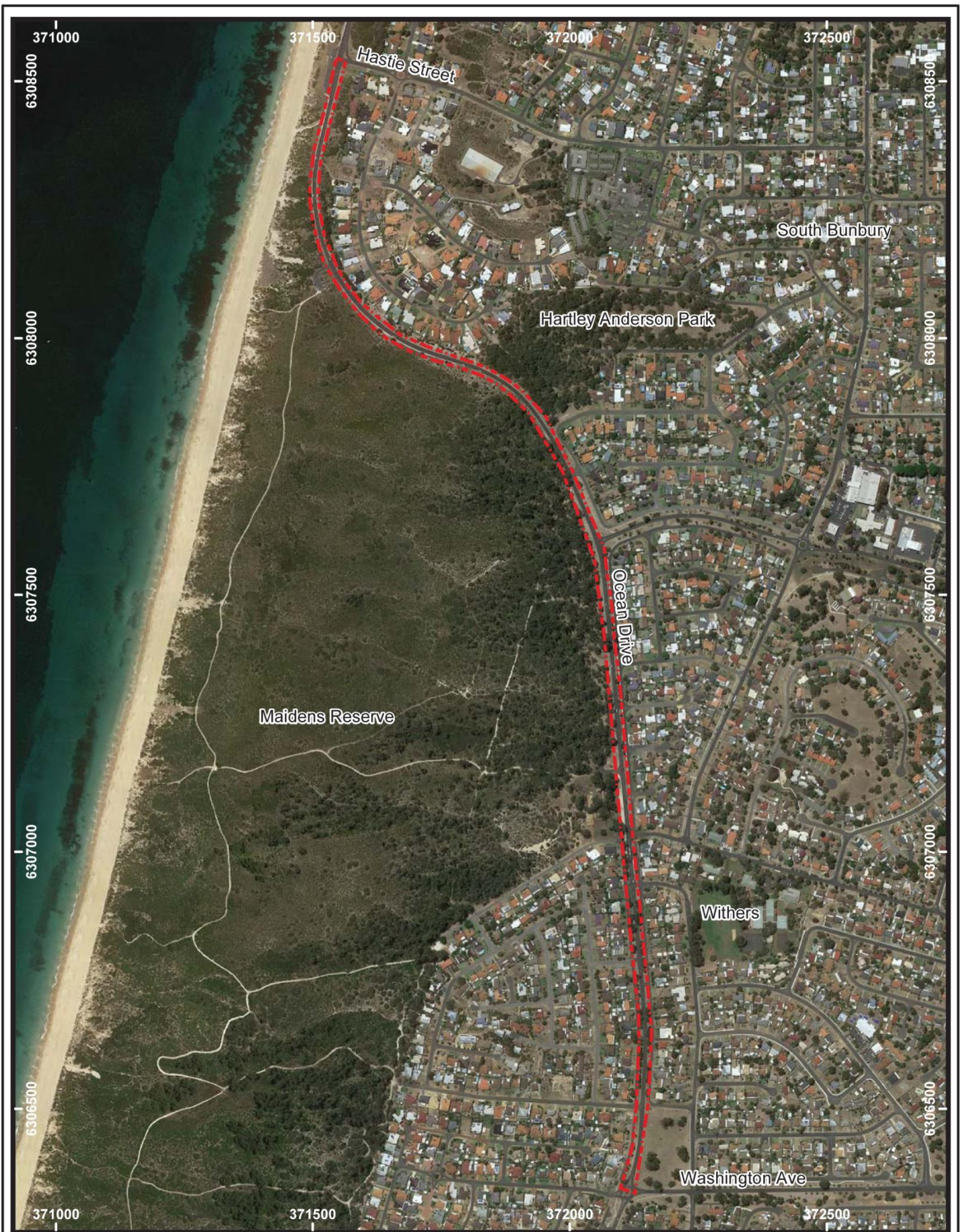
### 1.4.2 Description of vegetation type and condition

An assessment of vegetation within the proposed clearing area was undertaken by Ecoedge in October 2017.

The vegetation is in Good – Degraded condition according to the scale of the EPA (2016), and is described as a tuart (*Eucalyptus gomphocephala*) woodland over peppermint (*Agonis flexuosa*) low open woodland, over low open shrubland of *Acacia lasiocarpa*, *Spyridium globulosum*, *Phyllanthus calycinus*, *Leucopogon sp.* and *Alyxia buxifolia* over weeds.

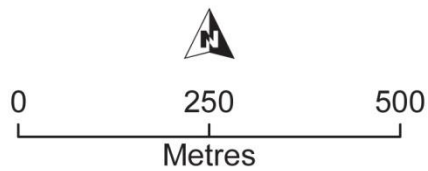
None of the species within the clearing area is listed as Threatened or Priority under the *Wildlife Conservation Act 1950* (WC Act) or the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), or is of conservation significance.





**Legend**

 Ocean Drive Study Area



Drawn: G Harewood  
Date: June 2017  
Scale: 1:9,500

Ocean Drive Upgrade Project

**Study Area  
Air Photo**



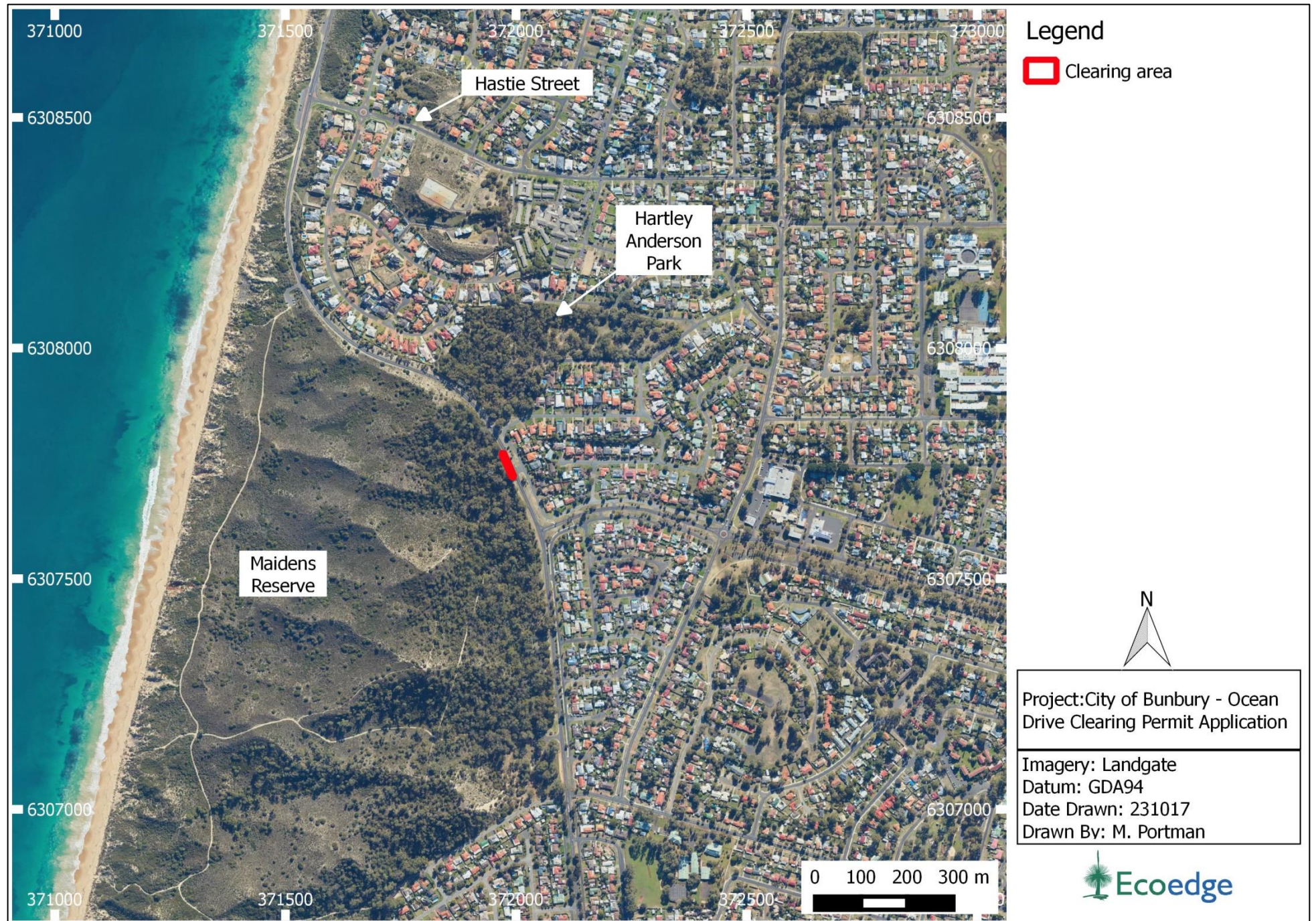


Figure 2. Location of the proposed clearing area.





Figure 3. Location, type and size of trees to be cleared.

## 1.5 Habitat for Threatened species

A Level 1 Fauna Survey was undertaken by Greg Harewood (Zoologist) in June 2017 (Harewood, 2017) (**Appendix 1**). The species of main concern within the study area were identified as the western ringtail possum (*Pseudocheirus occidentalis*)<sup>1</sup> and all three species of black cockatoos<sup>2</sup>. A nocturnal western ringtail possum survey was carried out on 1 June 2017, and a daytime survey was carried out on 2 June 2017. A follow-up visit to the clearing area by Greg Harewood to re-assess the trees that would be cleared under the proposal occurred on 24 October 2017. None showed any evidence of use by either western ringtail possums or black cockatoos, and none were observed to contain hollows of any size. An email confirming the results of this re-assessment is included in **Appendix 2**.

Information pertaining to the fauna survey is summarised below.

### 1.5.1 Western ringtail possums (WRPs)

No evidence of WRPs using the study area was found (i.e. no dreys, scats or individuals). The lack of observations of WRPs within the study area can be attributed to the poor quality of habitat present.

The survey results suggest that study area is not an area of significance for western ringtail possums.

While one WA peppermint tree is present the proposed clearing area cannot be regarded as a “remnant habitat patch” of any significance to WRPs.

None of the criteria identified in the Department of Environment and Energy’s “Significant Impact Guidelines for the vulnerable western ringtail possum (*Pseudocheirus occidentalis*) in the southern Swan Coastal Plain, Western Australia” will therefore be compromised and the likelihood of “significant impact” as defined within the referral guidelines can be regarded as low/negligible.

This conclusion is supported by observations made during the site inspection where the habitat present was found to be relatively poor in quality (i.e. relatively small peppermint trees and a lack of canopy continuity), the fact that the vegetation onsite does not appear to be in current use by WRPs, given no evidence of their presence was found during the targeted day and night surveys.

### 1.5.2 Black Cockatoos

The black cockatoo habitat tree assessment identified one single tuart tree within the clearing area with a DBH of >50 cm (**Figure 3**). This tree was not observed to contain hollows of any size.

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<sup>1</sup> Listed as Threatened under the WC Act and as Vulnerable under the EPBC Act.

<sup>2</sup> Carnaby’s cockatoo (*Calyptorhynchus latirostris*), listed as Endangered under both the WC Act and EPBC Act; Baudin’s cockatoo (*Calyptorhynchus baudinii*), listed as Endangered under the WC Act and Vulnerable under the EPBC Act, and; Forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*), listed as Vulnerable under both the WC Act and EPBC Act.



No evidence of black cockatoos foraging with the study area was observed during the survey period. This can be attributed to the total absence of any quality foraging habitat.

No existing roosting trees (trees used at night by black cockatoos to rest) were positively identified during the survey.

The survey results suggest that study area is not an area of significance for any of the three species of black cockatoo known to frequent the general area. This conclusion is based on the fact that only one habitat tree is involved, the fact that it is not currently in use as actual breeding habitat by black cockatoos (with no possible large hollows appearing to be present), and the total absence of quality foraging habitat in the immediate vicinity. It is therefore considered highly unlikely that the clearing of the vegetation in question would have a “significant impact” on the status of any of the three species of black cockatoo frequenting the general area.

### 1.5.3 Potential impacts to fauna

An assessment of the overall impacts on fauna which may result because of development within the study area suggest they will be nonexistent or negligible. Impacts, if they were to occur, are only expected to be low and relate to the loss of very small areas of highly degraded habitat of very limited extent.

### 1.6 Requirement for a Clearing Permit

A permit to clear is required under Part V of the *Environmental Protection Act 1986* (EP Act). An assessment of the proposed clearing against the Principles for clearing native vegetation under Schedule 5 the EP Act is set out below.

Information for this assessment in regards to fauna values has been taken from Harewood (2017).



**Ocean Drive Proposed Clearing:**

Clearing Principle	Response
(a) it comprises a high level of biological diversity ; or	Not at variance
(b) it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia; or	<p><u>Black Cockatoos</u>: Not at variance. The five trees and 9 shrubs that would be cleared under the proposal do not form part of significant habitat for Black Cockatoos.</p> <p><u>WRPs</u>: Not at variance. No evidence of past or present presence of WRPs was observed in the weather station buffer area during the fauna field survey.</p>
(c) it includes, or is necessary for the continued existence of, rare flora; or	Not at variance. No rare flora was observed within or near to the proposed clearing area. Vegetation is in Good-Degraded condition and is considerably modified from its natural state.
(d) it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community; or	Not at variance
(e) it is significant as a remnant of native vegetation in an area that has been extensively cleared; or	Not at variance
(f) it is growing in, or in association with, an environment associated with a watercourse or wetland; or	Not at variance
(g) the clearing of the vegetation is likely to cause appreciable land degradation; or	Not at variance
(h) the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area; or	Not at variance
(i) the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water; or	Not at variance
(j) the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	Not at variance

## 2 Conclusion

The City of Bunbury proposes to construct two on-road bicycle lanes along Ocean Drive between Hastie Street and Washington Avenue in order to provide a safe transit corridor for cyclists.

As part of this proposal, clearing of four tuart (*Eucalyptus gomphocephala*) trees, one WA peppermint (*Agonis flexuosa*) tree and 9 shrubs (comprised of two *Acacia lasiocarpa* plants and one each of *Agonis flexuosa*, *Alyxia buxifolia*, *Dianella revoluta*, *Jacksonia furcellata*, *Leucopogon sp.*, *Phyllanthus calycinus*, *Spiridium globulosum*) is required.

### 2.1 Vegetation values

An assessment of the vegetation in question was undertaken by Ecoedge in June 2017. No listed declared rare or priority flora was observed within the proposed clearing area, and the vegetation does not constitute a threatened or priority ecological community. Vegetation that would be cleared under the proposal is in Good-Degraded condition.

No impacts to vegetation values are expected to result from the proposed clearing.

### 2.2 Fauna values

The fauna survey results suggest that study area is not an area of significance for any of the three species of black cockatoo known to frequent the general area, for Western Ringtail Possums.

Nonexistent to negligible impacts to fauna are expected to result from the proposed clearing.

### 2.3 Proposed actions to further minimise impacts

In order to minimise any potential impacts to fauna from the proposed site works, all clearing and pruning would be undertaken outside of the known breeding and nesting seasons of listed fauna species. In addition, the City would implement all recommendations listed by Harewood in his report of the Level 1 fauna survey undertaken in June 2017 (Harewood, 2017).

### 2.4 Assessment against clearing principles

Based on an assessment against the principles for clearing native vegetation under Schedule 5 of the EP Act, the proposal is not considered to be at variance to any of these principles.



### 3 References

- Cardno Eppell Olsen (2010). City of Bunbury Bicycle Plan. Unpublished report prepared for the City of Bunbury.
- Department of Environment and Conservation (2007). *Reservation levels of vegetation complexes and systems with reserve status as at June 2007*. Excel spreadsheet. Department of Environment and Conservation, Perth, Western Australia.
- Department of Environment Regulation (2013). *A Guide to the Exemptions and Regulations for Clearing Native Vegetation Under Part V of the Environmental Protection Act 1986*. Department of Environment Regulation. Perth, Western Australia.
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- Harewood, G. (2017). Fauna Assessment: Ocean Drive Upgrade Project. Version 2. Unpublished report prepared for the City of Bunbury.
- Hedde, E. M., Loneragan, O. W. & Havel, J. J. (1980). Vegetation complexes of the Darling System, Western Australia. In: *Atlas of Natural Resources, Darling System, Western Australia*. Department of Conservation and Environment, Perth, 37-72.