



## CLEARING PERMIT

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

### PERMIT DETAILS

Area Permit Number: CPS 10000/1  
File Number: DWERVT11604  
Duration of Permit: From 24 April 2023 to 24 April 2030

### PERMIT HOLDER

City of Busselton on behalf of Bunbury Diocesan Trustees

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 226 on Deposited Plan 225893, Busselton.  
Queen Street Road reserve (PIN 11370162), Busselton

### AUTHORISED ACTIVITY

The permit holder must not clear more than four native trees 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 native vegetation after 24 April 2025.

#### 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. Fauna management – western ringtail possums

- (a) In relation to the area cross-hatched yellow in Figure 1 of Schedule 1, the permit holder must engage a *fauna specialist* to inspect that area immediately prior to, and for the duration of clearing activities, for the presence of western ringtail possum(s) (*Pseudocheirus occidentalis*).
- (b) Clearing activities must cease in any area where fauna referred to in condition 4(a) are identified until either:
  - (i) the western ringtail possum(s) individual has moved on from that area to adjoining *suitable habitat*; or
  - (ii) the western ringtail possum(s) individual has been removed by a *western ringtail possum specialist*.
- (c) Any western ringtail possum(s) individual removed in accordance with condition 4(b)(ii) must be relocated by a *western ringtail possum specialist* to a *suitable habitat* or as otherwise approved by the *CEO*.
- (d) Where fauna is identified under condition 4(a), the permit holder must within 14 calendar days provide the following records to the *CEO*:
  - (i) the number of individuals identified;
  - (ii) the date each individual was identified;
  - (iii) the location where each individual was identified recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
  - (iv) the number of individuals removed and relocated;
  - (v) the relevant qualifications of the *western ringtail possum specialist* undertaking removal and relocation;
  - (vi) the date each individual was removed;
  - (vii) the method of removal;

- (viii) the date each individual was relocated;
- (ix) the location where each individual was relocated to, recorded using a GPS unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings or decimal degrees; and
- (x) details pertaining to the circumstances of any death of, or injury sustained by, an individual.

## 5. Planting – mitigation

(a) The permit holder must, within 12 months of the commencement of clearing authorised under this permit:

- (i) undertake deliberate *planting* of 6 *Agonis flexuosa* (peppermint) trees within the area hatched red in Figure 2 of Schedule 1;
- (ii) ensure only *local provenance* propagating material is used for *planting* activities;
- (iii) ensure *planting* is undertaken at an *optimal time*; and
- (iv) undertake watering of seedlings, as required, for at least two years post *planting*.

(b) The permit holder must, within 24 months of *planting* the trees in accordance with condition 5(a)(i) of this permit:

- (i) engage an *environmental specialist* to make a determination on the likelihood of survival of planted trees;
- (ii) if the determination made by the *environmental specialist* under condition 5(b)(i) is that any planted trees will not survive, the permit holder must plant additional trees that will result in 6 trees persisting at the suitable location; and
- (iii) where additional *planting* of trees is undertaken in accordance with condition 5(b)(ii), the permit holder must repeat the activities required under conditions 5(a)(ii)-(iv) and 5(b)(i)-(ii) of this permit.

## 6. 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	(a) the species composition, structure, and density of the cleared area;

No.	Relevant matter	Specifications
	activities generally	<ul style="list-style-type: none"> <li>(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;</li> <li>(c) the date that the area was cleared;</li> <li>(d) the size of the area cleared (in hectares);</li> <li>(e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 2;</li> <li>(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;</li> <li>(g) actions taken to manage and mitigate impacts to western ringtail possums in accordance with condition 4.</li> </ul>
2.	In relation to <i>planting</i> pursuant to condition 5	<ul style="list-style-type: none"> <li>(a) the date(s) on which the <i>planting</i> was undertaken;</li> <li>(b) the number of trees planted;</li> <li>(c) a description of the <i>planting</i> activities undertaken pursuant to condition 5(a), including actions taken to implement watering; and</li> <li>(d) a description of any additional <i>planting</i> undertaken in accordance with condition 5b(ii) and (iii), including dates of additional <i>planting</i>, number of additional trees planted and any remedial actions undertaken.</li> </ul>

## 7. Reporting

The permit holder must provide to the *CEO* the records required under condition 6 of this permit when requested by the *CEO*.

## DEFINITIONS

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

**Table 2: Definitions**

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994 (WA)</i> and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
fauna specialist	means a person who holds a tertiary qualification specialising in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the CEO as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the <i>Biodiversity Conservation Act 2016</i> .
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 the same IBRA subregion of the area cleared.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
Optimal time	means the period from May to June for undertaking planting.
suitable habitat (western ringtail possum)	means habitat known to support western ringtail possums ( <i>Pseudocheirus occidentalis</i> ) within the known current distribution of the species, typically characterised by abundant foliage, presence of suitable nesting structures such as tree hollows, as well as high canopy cover and continuity. Known habitat includes peppermint ( <i>Agonis flexuosa</i> ) dominated woodlands, jarrah ( <i>Eucalyptus marginata</i> ) and marri ( <i>Corymbia calophylla</i> ) forests, riparian vegetation with a canopy of Bullich ( <i>Eucalyptus megacarpa</i> ) or flooded gum ( <i>Eucalyptus rudis</i> ), karri ( <i>Eucalyptus diversicolor</i> ) forests, sheoak ( <i>Allocasuarina fraseriana</i> ) dominated woodlands, and other stands of myrtaceous trees growing near swamps, watercourses or floodplains.
weeds	means any plant – <ol style="list-style-type: none"> <li>(a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i>; or</li> <li>(b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or</li> <li>(c) not indigenous to the area concerned.</li> </ol>

Term	Definition
western ringtail possum specialist	means a <i>fauna specialist</i> who holds a tertiary qualification specialising in environmental science or equivalent, has a minimum of two years of work experience in western ringtail possum ( <i>Pseudocheirus occidentalis</i> ) identification, surveys of western ringtail possums and capture and handling of western ringtail possums, and holds a valid fauna licence issued under the <i>Biodiversity Conservation Act 2016</i> .

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**END OF CONDITIONS**



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**Meenu Vitarana**  
**Manager**

NATIVE VEGETATION REGULATION

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

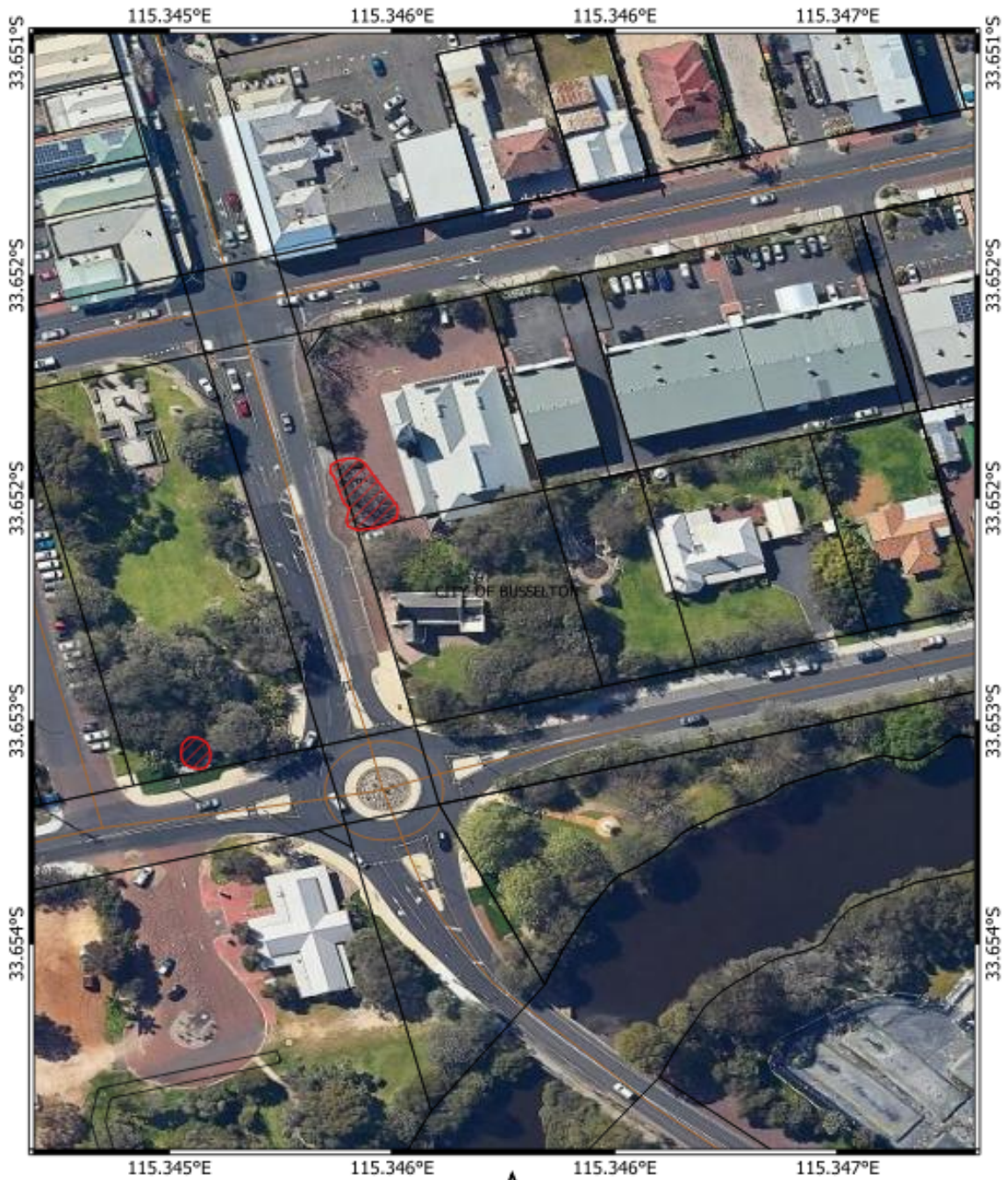
31 March 2023

# SCCHEDULE 1



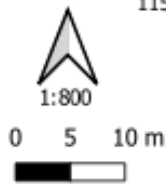
**Figure 1: Map of the boundary of the area within which clearing may occur**





**Legend**

- Land Tenure
- Local Government Authorities
- Road Centrelines
- Local Rd - Sealed



**GOVERNMENT OF  
WESTERN AUSTRALIA**

**Figure 2. Map of area to be replanted**





# Clearing Permit Decision Report

## 1 Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 10000/1
<b>Permit type:</b>	Area permit
<b>Applicant name:</b>	City of Busselton on behalf of Bunbury Diocesan Trustees
<b>Application received:</b>	12 December 2022
<b>Application area:</b>	Four native trees
<b>Purpose of clearing:</b>	Hazard reduction
<b>Method of clearing:</b>	Manual clearing
<b>Property:</b>	Lot 226 on Deposited Plan 225893 and Queen Street Road Reserve (PIN 11370162)
<b>Location (LGA area/s):</b>	City of Busselton
<b>Localities (suburb/s):</b>	Busselton

### 1.2. Description of clearing activities

The vegetation proposed to be cleared is contained within a single contiguous area (see Figure 1, Section 1.5). The application is to clear old peppermint trees that are dead or dying to reduce the hazard of tree limb falling onto the nearby carpark and footpath.

### 1.3. Decision on application

<b>Decision:</b>	Granted
<b>Decision date:</b>	31 March 2023
<b>Decision area:</b>	Four 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 no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix A), relevant datasets (see Appendix G.1), the findings of a fauna survey and tree assessments (see Appendix D), the clearing principles set out in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that the proposed clearing will result in:

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation
- the loss of native vegetation that is suitable habitat for Western Ringtail Possum (WRP) (*Pseudocheirus occidentalis*).

After consideration of the available information, the need for the clearing, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely to have long-term adverse impacts on the habitat of WRP and 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 the need for the clearing.

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
- engage a fauna specialist to inspect the area prior to, and for the duration of clearing activities and if required, appropriately remove/relocate any individual WRPs utilising the application area at the time of the clearing to suitable habitat
- replant six trees of the same species (*Agonis flexuosa*) in the application area to ensure WRP habitat is not permanently lost.

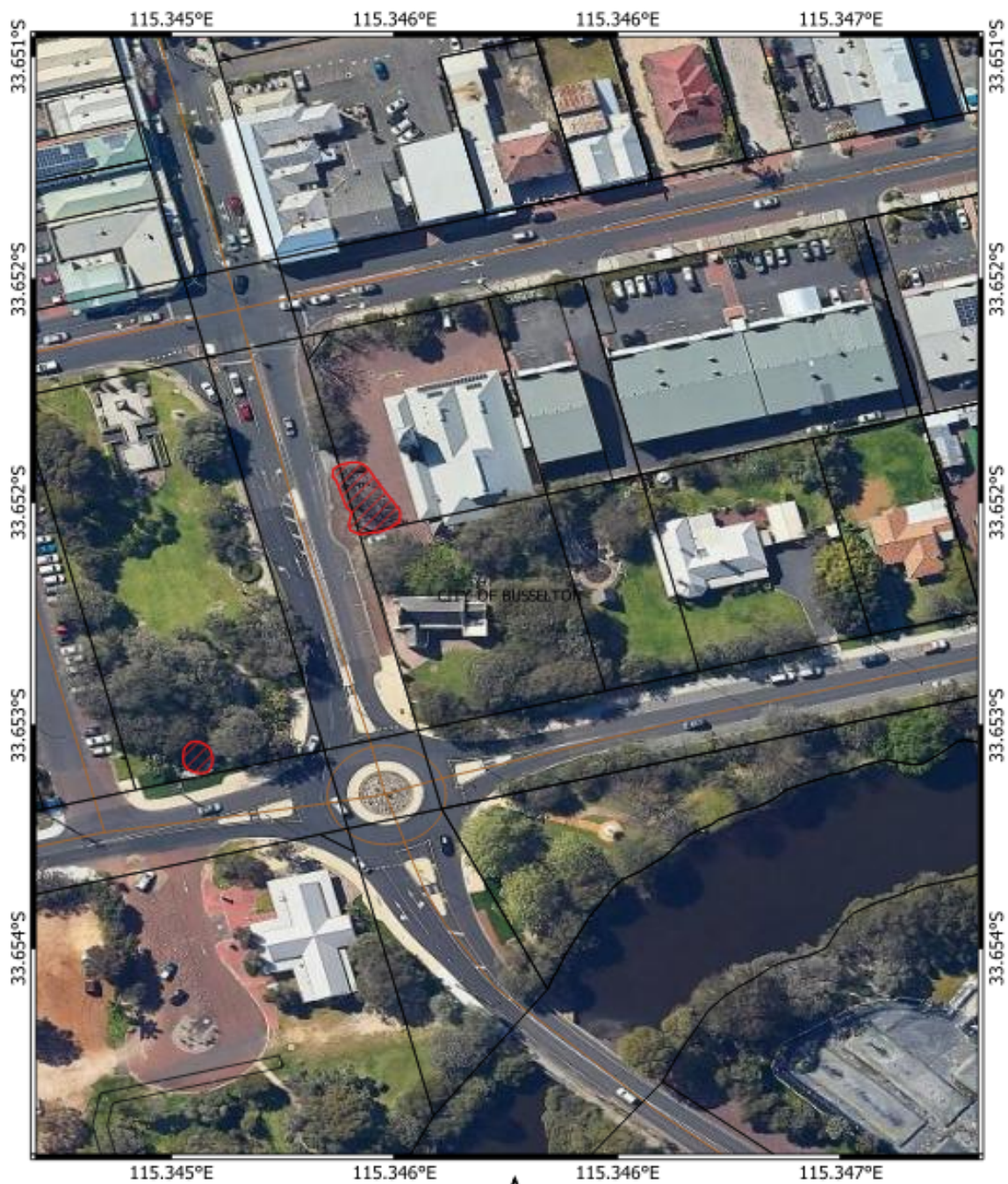
## 1.5. Site map



Figure 1. Map of the application area

The area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit.





- Legend**
- Land Tenure
  - Local Government Authorities
  - Road Centrelines
  - Local Rd - Sealed

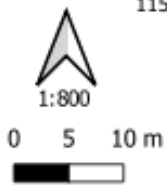


Figure 2. Map of area to be replanted

The areas hatched red indicate areas conditioned for replanting under the granted clearing permit. The applicant advised that the replanting will occur in the same area following the clearing, however noting 6 trees will be planted to replace the loss of 4 trees, and due to limited space due to services such as power infrastructure on the verge, if there is not enough room for replanting at the place of clearing, the remaining tree(s) will be replanted in a nearby park (the red hatched polygon on the south east corner of Figure 2).

## 2 Legislative context

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

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

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

Other legislation of relevance for this assessment include:

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

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)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016) (*Delete if fauna surveys not included*)

## 3 Detailed assessment of application

### 3.1. Avoidance and mitigation measures

Supporting documents were submitted by the applicant, explaining the reasoning for the proposed clearing and demonstrating that the applicant has made efforts to retain the trees.

- The applicant advised that the condition of the trees within the grounds of St. Mary's has been a concern for many years. In 2010 a replanting program was initiated to provide for succession of the older trees as they senesced;
- In 2018 the trees at the front of St. Mary's Family Centre were dropping limbs in St. Mary's Carpark so a tree condition assessment was undertaken. At the time 3 trees were recommended for removal and four on the corner were recommended for thinning and removal of dead wood of overhanging limbs. The City of Busselton (the City) became involved at this stage as some of the trees were on the road verge and some within the St. Mary's car park;
- In 2019 the City had an independent structural assessment undertaken and this determined that all the trees could be retained a bit longer by pruning and removal of dead wood of overhanging limbs to reduce load on the trees and that the trees be monitored on a regular basis;
- In 2021 it was noted the tree canopies were now getting very thin. A follow up tree assessment was undertaken (by an independent arborist) and recommendations made that five of the trees at the front of St. Mary's Family Centre be removed. In addition to this a QTRA assessment of three of the trees that are located on the road verge was undertaken by City staff. The risk assessment identified that all of the trees on the City Road verge were considered to be high risk to people using the footpath underneath the trees and therefore should be removed (City of Busselton, 2022).

The Delegated Officer was satisfied that the applicant has justified the need for the clearing.

The applicant provided the following mitigation measures:

- The City and St. Mary's Parish Busselton will be planting advanced trees to replace the trees that are removed and associated habitat values. They will be planted at spacings that are appropriate for the amount of room in the verge and so their crowns will form continuous canopy to enable WRP movement within 3-5 years of planting.
- The placement of nesting boxes may provide a safe alternative for nesting while the new trees establish.

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

## 3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix A) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix B) identified that the impacts of the proposed clearing present a risk to biological values (fauna). 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 (b)

#### Assessment

The proposed clearing area comprises of three dead and one nearly dead peppermint tree (City of Busselton, 2022) (see photos in Appendix D). A desktop assessment identified that there are 56 conservation significant fauna species mapped in the 10-kilometre radius of the application area (local area), including 41 bird species, nine mammal species, three reptile species, two invertebrate species and one fish species. Due to the niche habitat requirements (associated with marine or watercourse) and/or the long distance of historical records from the proposed clearing area (over 6.8 kilometres), the recorded reptile, invertebrate and fish species are unlikely to occur within the application area.

#### **Birds**

Majority of the bird species recorded in the local area are associated with coastal, estuarine or wetland habitat which are most likely not to occur in the application area due to the differences in habitat. Black cockatoos, Peregrine falcon (*Falco peregrinus*) and the masked owl (southwest) (*Tyto novaehollandiae novaehollandiae*) are inland birds mapped within the local area with the recorded closest distance to the application area of 0.30, 0.44 and 1.15 kilometres, respectively.

#### **Black cockatoos**

The application area is located within the mapped distribution areas of three threatened species of black cockatoos (BC), including the vulnerable *Calyptorhynchus banksii naso* (Forest red-tailed black cockatoo), the endangered *Zanda latirostris* (Carnaby's black cockatoo) and *Zanda Calyptorhynchus* (Baudin's cockatoo). There are 60 BC records within the local area. One roosting site was recorded in the local area at the approximate distance of 4.8 kilometres away from the application area. The application area does not fall within broadly mapped potential black cockatoo feeding area (GIS database).

There are three key components of black cockatoo habitat: foraging habitat; roosting habitat; and breeding habitat. The quality of black cockatoo foraging habitat to support populations at breeding sites or night roosting sites varies depending upon how black cockatoos utilise the habitat in that particular location. Any tall trees, generally close to riparian environment, can be potential roosting habitat of black cockatoos (DSEWPC 2012). For a black cockatoo breeding site to be viable, there must be sufficient foraging habitat available within 6 to 12 kilometres of a nesting site (DSEWPC 2012).

Peppermint tree is a potential food resource for Carnaby's black cockatoos (Groom, 2011) but not a preferred foraging source (DSEWPC, 2012). In addition, due to the poor condition of the trees proposed to be cleared and the presence of adjacent better-quality vegetation close to a nearby watercourse, it is unlikely that trees within the application area will provide significant habitat for Black cockatoos. In the context of the application area, black cockatoos are most likely to utilise the landscape along the river to the south where extensive tracts of native vegetation occur. As such, the possibility of black cockatoos using the trees within the application area is minimal.

#### **Other birds**

The peregrine falcon typically nests on rocky ledges in tall, vertical cliff faces and gorges, or in tall trees associated with drainage lines, and can hunt in a range of habitat types including timbered watercourses, riverine environments, wetlands, plains, open woodlands, and pylons and spires of buildings (Australian Museum, 2019). Given its proximity to existing records, the application area may provide suitable foraging habitat for the peregrine falcon. However, noting that the peregrine falcon is a highly mobile species with a large home range that does not rely on special niche habitats, the peregrine falcon is likely to be transient in the application area and it is unlikely that the application area represents significant habitat for the species.

The masked owl (southwest) inhabits in open forests and woodlands, preys on small mammals, possums, reptiles, birds and insects ((Australian Museum, 2020). Given the poor condition of trees in the application area in the context of urban landscape and the better-quality vegetation patch in its vicinity, the proposed clearing area is unlike to provide suitable habitat for the masked owl.



## **Mammals**

Among nine mammal species recorded in the local area, four species including the critically endangered western ringtail possum (*Pseudocheirus occidentalis*), the vulnerable western quoll/chuditch (*Dasyurus geoffroii*), the Priority 4 quenda (*Isoodon fusciventer*) and the specially protected South-western brush-tailed phascogale (*Phascogale tapoatafa wambenger*) can be considered as potentially occur in the application due to the proximity and number of individuals recorded in the local area.

### ***Western ringtail possum***

The western ringtail possum (WRP) is a medium sized, nocturnal species that roams through the trees at night, feeding on leaves of eucalypt, marri and peppermint trees and other fruits and flowers. It has a long, thin tail with a white tip that helps it to move through the trees and carry nesting material (DCCEEW, 2023). The current distribution of the western ringtail possum is patchy and largely restricted to the moister south-western corner of Western Australia (de Tores, 2008), especially near coastal areas of peppermint woodland and peppermint/tuart associations from the Australind/Eaton area to the Waychinicup National Park (DEC, 2012a). The main identified threats to the western ringtail possum are habitat loss and fragmentation, predation, especially by introduced predators and changing fire regimes. Potential threats include climate change, competition with brushtail possum, road traffic, loss of coastal peppermint trees from dieback caused by *Phytophthora cinnamomi*, insect attack, and myrtle rust (*Puccinia psidii*) (DoEE, 2013).

Swan Coastal Plain zone, principally around Busselton, where is the application area located, is one of the three key zones for management of the WRP. This species' habitat in this zone is associated with the near-coastal limestone heath, riparian, jarrah marri thicket woodland and forest, peppermint woodland and karri forest vegetation (DPAW, 2017). There are 6642 records of WRP identified within the local area (10-kilometres radius). A WRP survey provided by the applicant shows that three WRP individuals were using the hollows within the trees proposed for removal. There were total of 28 WRPs were recorded in neighbouring reserves/properties around the application area (see Appendix F) (City of Busselton, 2022). However, considering the poor condition of the trees proposed to be cleared, the extent of the proposed clearing, and the better quality of adjacent vegetation, the proposed clearing is unlikely to cause a significant impact to this fauna species if suitable pre-clearing fauna management is applied during the clearing activities. Furthermore, noting that the application area then will be replanted with the same tree species, the negative impact on WRP due to the loss of habitat will not last in the long-term.

### ***Other mammal species***

The western quoll is the largest carnivorous marsupial occurring in WA. Majority of its population is associated with the eucalyptus forests and woodlands, mallee heath and shrubland in the south and south-west coast of the state. This species forages mostly at night and on the ground. They consume invertebrates, insects, mammals, birds, lizards and some small fruits, flowers and seeds (DEC, 2012b). Quendas are ground-dwelling marsupials, typically associated with forest or woodlands near watercourses, where understorey consists of dense scrub and leaf litter is abundant (DEC, 2012c). The south-western brush-tailed phascogales are usually found in Jarrah forests in the southwest of WA (DBCA, 2023a) with their preferable habitat is associated with dry sclerophyll forests and open woodland with hollow-bearing eucalyptus trees (DBCA, 2023b).

Considering the landscape context of the application area (along a road verge in a developed urban area), its type of vegetation (peppermint trees) and completely degraded condition, the proposed clearing area is unlikely provide suitable habitat for the western quoll, quenda and south-western brush-tailed phascogale.

## **Conclusion**

An analysis on the likelihood of the area proposed to be cleared to be suitable habitat for mapped fauna species within the local area was conducted based on the suitability of known habitat, minimum distance from the records to the application area, number of species counted in the local area, and the age of data recorded. It is found that most of the fauna species mapped within the local area are unlikely to appear in the application area, except for the Western ringtail possum (*Pseudocheirus occidentalis*), which is currently listed as critically endangered under the *Western Australia's Biodiversity Conservation Act 2016* (BC Act) and the federal *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Based on the above assessment, the proposed clearing is likely to impact individuals from the urban population of WRPs present within the local landscape, in particular for those transitioning across the application area.

It is considered that the impacts of the proposed clearing on WRP's using the application area at the time of the clearing (short term impacts) can be managed by engaging a fauna specialist to inspect the trees and disperse or translocate any individuals that may be present into adjacent vegetation. Medium to long term impacts will be

mitigated by replanting with similar trees (at an advanced stage of development) the site post clearing to ensure the habitat is not permanently lost.

#### Conditions

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

- Fauna management – western ringtail possums: Engage a fauna specialist to inspect the application area immediately prior to, and for the duration of clearing activities, for the presence of WRP and to move the WRP individuals from the application area (if any) to adjoining suitable habitat.
- Revegetation: Revegetate the cleared area after clearing with the same tree species.

### **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 percent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

Aerial photography indicates the local area (10-kilometre radius) is approximately 16.46 percent vegetated.

The application area contains native vegetation in a completely degraded condition which is unlikely to be significant as a remnant. Noting the small size of the application area, the build up nature of the landscape (within the Busselton townsite), the current poor vegetation condition, and the applicant's proposed replanting post clearing, the removal of the four trees will not significantly reduce the area of remnant native vegetation in the local area.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

#### Conclusion

The proposed clearing is unlikely to be considered as a significant remnant in a extensively cleared landscape.

#### Conditions

- Nil

### **3.3. Relevant planning instruments and other matters**

The applicant has sought for advice from the Department of Biodiversity, Conservation and Attractions (DBCA) on the trees around the St. Mary's Church (including the proposed clearing area). The advice of DBCA in August 2022 includes following main contents:

- Stage the removal of trees where possible to reduce the immediate impact on resident animals, allowing them to move to nearby trees.
- Prune and retain the dead trees where possible as there are significant hollows and crevices which may be providing shelter.
- Put in some replacement peppermints where possible to provide future habitat and connectivity.
- Review whether ropes could be installed to maintain canopy connectivity between retained trees in the surrounding area.

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.

**End**

## Appendix A. Site characteristics

### A.1. Site characteristics

Characteristic	Details
Local context	<p>The area proposed to be cleared is part of an isolated patch of native vegetation in the intensive land use zone of Western Australia. It is on a verge between an urban road and a car park. The proposed clearing area is a part of a small isolated remnant in a highly cleared landscape.</p> <p>Aerial imagery indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 16.5 per cent of the original native vegetation cover.</p>
Ecological linkage	<p>The application area does not lie in any formally mapped ecological linkages, however it is a part of informal linkage around the property and its neighbouring area. The Southwest Region Ecological Linkages are mapped approximately 100 metres at the south of the application area.</p>
Conservation areas	<p>The nearest conservation area to the application area is an unnamed Nature Reserve which is located approximately 600 metres on the southwest of the application area</p>
Vegetation description	<p>Photographs and tree assessment supplied by the applicant indicate the vegetation within the proposed clearing area consists of Peppermint trees (<i>Agonis flexuosa</i>) and non-native shrub species of <i>Eleagnus x ebbingei</i>. Representative photos are available in Appendix D.</p> <p>This is partly consistent with the mapped vegetation type(s): 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 lanceolata</i> (Rottnest Teatree) - <i>Callitris preissii</i> (Rottnest Island Pine), the closed scrub of <i>Acacia rostelifera</i> (Summer-scented Wattle) and the low closed <i>Agonis flexuosa</i> (Peppermint) forest of Geographe Bay.</p>
Vegetation condition	<p>Tree assessment supplied by the applicant indicate the vegetation within the proposed clearing area is in completely degraded (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> <li>The structure of the vegetation is no longer intact and the area is completely or almost completely without native species.</li> </ul> <p>The full Keighery (1994) condition rating scale is provided in Appendix C. Representative photos are available in Appendix D.</p>
Climate and landform	<p>Climate: Mean maximum temperature is 22.0 degrees Celsius.</p> <p>Mean minimum temperature is 10.4 degrees Celsius.</p> <p>Rainfall: Mean annual rainfall is 805.4 millimetres.</p> <p>Landform: Relict foredunes and gently undulating beach ridge plain</p>
Soil description	<p>The soil is mapped as Quindalup South Qf2 Phase 211Qu_Qf2, briefly described as relict foredunes and gently undulating beach ridge plain with deep uniform calcareous sands.</p>
Land degradation risk	<p>The soil type within the application area is mapped as having a low risk of land degradation resulting from water erosion, salinity, subsurface acidification, flooding, water logging and phosphorous export. It has only medium land degradation risk caused by wind erosion (DPIRD, 2021).</p>

Characteristic	Details
Waterbodies	The desktop assessment and aerial imagery indicated that no wetlands or waterbodies transecting the application area. The Vasse River is located approximately 100 metres in the south of the application area.
Hydrogeography	Groundwater salinity within the application area is mapped as from 3000 to 7000 milligrams per litre total dissolved solids.
Flora	There are records of 60 threatened and priority flora species in the local area, including 14 species listed as threatened. There are five threatened species mapped in the same soil type and vegetation type as the application area.
Ecological communities	The desktop assessment identified that the closest state-listed priority ecological community (PEC) is an occurrence of the Subtropical and Temperate Coastal Saltmarsh, located approximately 130 metres south-southwest of the application area.
Fauna	The desktop assessment identified that a total of 56 threatened or priority fauna species have been recorded within the local area (excluding the ocean), including 24 threatened fauna species, eight priority fauna species, and 24 specially protected fauna species.

## A.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**					
Quindalup Complex	54,573.87	33,011.64	60.49	5,994.64	10.98
Local area					
10km radius	18,544.11	3,052.14	16.46	-	-

\*Government of Western Australia (2019a)

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

## A.2. 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 in the local area (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Calyptorhynchus banksii naso</i>	VU	N	N	0.40	7	N/A
<i>Calyptorhynchus baudinii</i>	EN	N	N	1.74	26	N/A
<i>Calyptorhynchus latirostris</i>	EN	N	N	0.30	27	N/A
<i>Dasyurus geoffroii</i>	VU	N	N	1.15	4	N/A
<i>Falco peregrinus</i>	OS	N	N	0.44	24	N/A
<i>Phascogale tapoatafa wambenger</i>	CD	N	N	0.50	46	N/A
<i>Pseudocheirus occidentalis</i>	CR	Y	Y	0.04	6642	Y

\* CR: critically endangered, EN: endangered, VU: vulnerable, OS: Other specially protected, CD: conservation dependent

### A.3. Land degradation risk table

Risk categories	Land Unit 1
Wind erosion	M2: 30-50% of the map unit has a high to extreme hazard
Water erosion	L1: <3% of the map unit has a very high to extreme hazard
Salinity	L1: <3% of the map unit has a moderate or high hazard or is presently saline
Subsurface Acidification	L1: <3% of the map unit has a high susceptibility
Flood risk	L1: <3% of the map unit has a moderate to high hazard
Water logging	L1: <3% of the map unit has a moderate to very high to risk
Phosphorus export risk	L1: <3% of the map unit has a high to extreme hazard

### Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>The application area consisting of four dead or in poor condition Peppermint trees (<i>Agonis flexuosa</i>) is considered unlikely to comprise a high level of biodiversity.</p>	Not likely to be at variance	No
<p><u>Principle (b):</u> "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."</p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared contains suitable habitat for western ringtail possum. Survey also found that some WRPs are using the trees proposed to be removed as their refuging habitat. However, given the small extent and the poor condition of the vegetation proposed to be cleared as well as the existence of adjacent better-quality vegetation, the proposed clearing can be considered unlikely to be a significant habitat for this species.</p>	May be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<p><u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</p> <p><u>Assessment:</u></p> <p>No threatened flora has been recorded in the application area from the desktop assessment. There are five threatened species mapped in the same soil type and vegetation type as the application area. However, the recorded habitat of these species is different with the area to be cleared, therefore the likelihood for them to present in the application area is very low. The photographs provided by the applicant show no threatened flora species in the application area. Given that the landscape context (busy townsite) and the small area proposed to be cleared, the proposed clearing is not likely to be at variance to this clearing principle.</p>	Not likely to be at variance	No



Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (d):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared does not contains species that can indicate a threatened ecological community (TEC). The closest TEC mapped is approximately nine kilometres from the application area. Given the distance and separation from the nearest TEC, the proposed clearing is not likely to impact or be necessary for the maintenance of any TEC.</p>	Not at variance	No
<b>Environmental value: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The vegetation proposed to be cleared comprises dead or close to dead trees. Considering the poor vegetation condition, the small clearing area and applicant’s revegetation plan, the proposed clearing is not likely to be at variance to this clearing principle.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.2, above.</i>
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u></p> <p>There is an unnamed Nature Reserve located 600 metres on the southwest of the application area. Given the distance to the nearest nature reserve, the poor vegetation condition and the small clear area, the proposed clearing is unlikely to have an impact on the environmental values of the nearby conservation area.</p>	Not likely to be at variance	No
<b>Environmental value: land and water resources</b>		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>Given no water courses or wetlands are recorded within the application area and the small clear area, the proposed clearing is unlikely to impact on- or off-site hydrology and water quality.</p>	Not likely to be at variance	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils are moderately susceptible to wind erosion. Noting the extent of the application area and the final land use of growing replacement trees after clearing, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not likely to be at variance	No
<p><u>Principle (i):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i></p> <p><u>Assessment:</u></p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Given no water courses or Public Drinking Water Sources Areas are recorded within the application area and the extent of clearing, the proposed clearing is unlikely to impact surface or ground water quality.		
<p><u>Principle (j)</u>: “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</p> <p><u>Assessment</u>:</p> <p>The mapped soils and topographic contours in the surrounding area do not indicate that the application area is susceptible to flooding. Noting this, the extent of the proposed clearing, and the condition of the vegetation, the proposed clearing itself is unlikely to contribute to increased incidence or intensity of flooding.</p>	Not likely to be at variance	No

### Appendix C. Vegetation condition rating scale

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

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

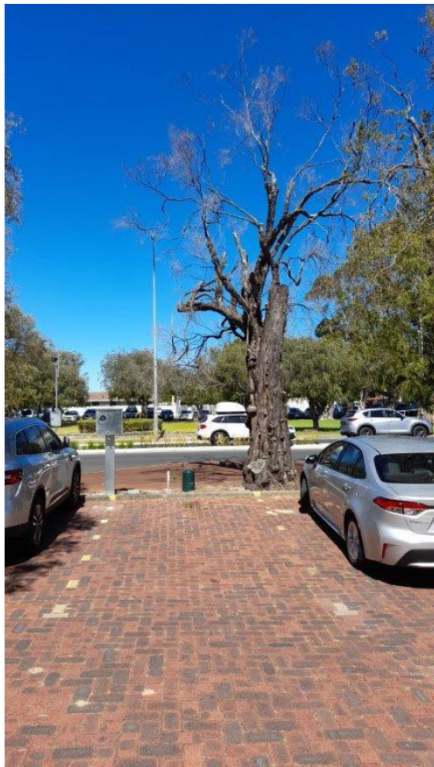
Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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

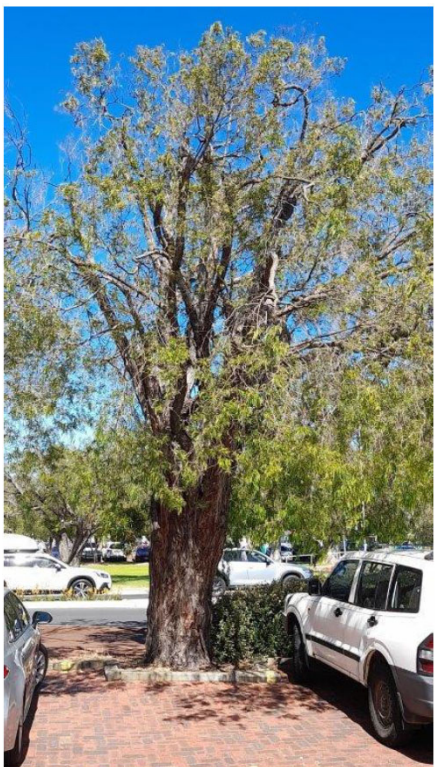
Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance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

## Appendix D. Photographs of the vegetation

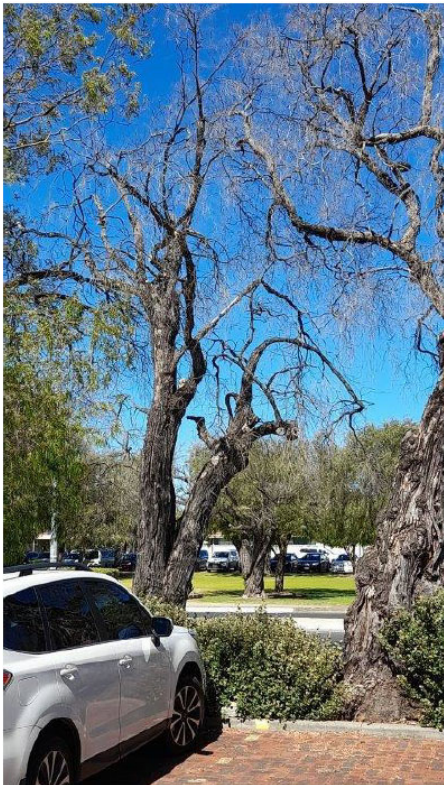
The application area comprises four peppermint trees in poor condition, some shrubs of non-native vegetation of *Eleagnus x ebbingei* (photos were taken in September 2022) (City of Busselton, 2022)



Tree 1: Dead



Tree 2: Still alive but in poor condition (cracks on one side of the trunk)



Tree 3: Dead



Tree 4: Dead

## 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)

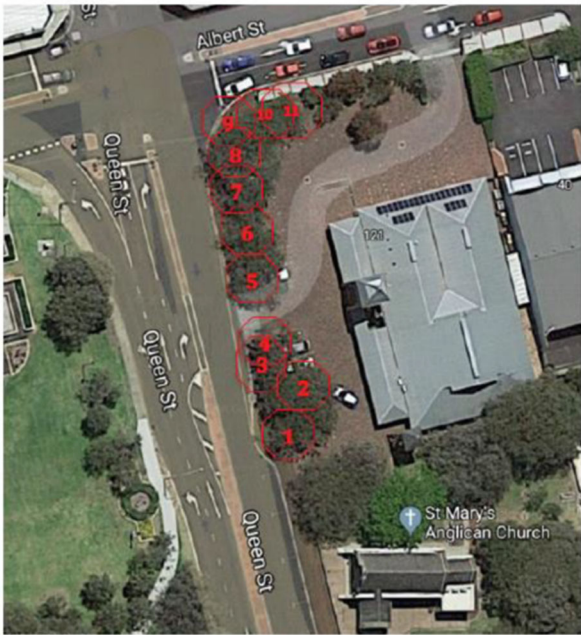
Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
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. Biological survey information excerpts

## Tree assessments

Excerpt of a tree structural assessment conducted by an arborist in May 2021. Trees with number of 1, 2, 3 and 4 are included in the application area. The vitality of trees no.3 and 4 have changed from "Fair" in the below table to "Poor" (dead) based on the photos provided (taken in September 2022, Appendix D) (City of Busselton, 2022)



Tree No.	Tree Species	Age Class	DBH m	Height m	Vitality	Structure
1	<i>Agonis flexuosa</i>	Post-Mature	1	10	Fair/poor	Poor
2	<i>Agonis flexuosa</i>	Post-Mature	1.25	12	Fair/poor	Poor
3	<i>Agonis flexuosa</i>	Mature	0.7	10	Fair	Fair
4	<i>Agonis flexuosa</i>	Post-Mature	1.25	10	Fair	Poor
5	<i>Agonis flexuosa</i>	Semi-Mature	0.75	7.5	Good	Fair
6	<i>Agonis flexuosa</i>	Semi-Mature	0.85	7.5	Fair/poor	Fair
7	<i>Agonis flexuosa</i>	Young	0.15	4	Good	Good
8	<i>Agonis flexuosa</i>	Post-Mature	2	10	Poor	Poor
9	<i>Agonis flexuosa</i>	Post-Mature	1.2	10	Poor	Poor
10	<i>Agonis flexuosa</i>	Post-Mature	1.35	10	Poor	Poor
11	<i>Agonis flexuosa</i>	Mature	0.7	7.5	Poor	Fair

Excerpt of Quality Tree Risk Assessment (QTRA) for the tree no. 1 conducted by the City of Busselton's technical officer in July 2021 (City of Busselton, 2022)

### QTRA Report

Address / Location Road reserve - St Mary's Church 119-121 Queen Street.

Inspection (Date) 13/07/21

Species	Age Range	Height	Stem Diameter	Vitality
<i>Agonis flexuosa</i>	Post mature	10m	1m	Dead

The Risk index is therefore between 1/1000 - 1/10,000 deemed Unacceptable.

Target Range	Size Range	Probability Range	Risk Index	Review Years
3	2	1-2	1/10k	N/A

• **Management Options**

**Option 1.-**

Remove the tree and stump, replanting new specimen(s) within the street garden, giving long-term architectural structure / shade to the area.

**Option 2.-**

Remove the branch structure entirely to 5m, install climbing wire to stem, trial establishing climber plants onto stem. Offers short term habitat, no shade. Public may not understand leaving a 5-6m stump in prominent location.

Sign off: [Redacted Signature]  
 Manager, Operations Services

Comments: *Recommend option 1*

## WRP survey

Excerpt of WRP survey in the application area (the bottom yellow polygon) and its neighbouring reserves/properties (City of Busselton, 2022).



## Appendix G. Sources of information

### G.1. GIS databases

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

- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- 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
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas



- 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

Restricted GIS Databases used:

- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities

## G.2. References

- Australian Museum (2020) *Masked owl (Tyto novaehollandiae)*. The Australian Museum, New South Wales. Available from: <https://australian.museum/learn/animals/birds/masked-owl/> (accessed February 2023).
- Australian Museum (2019) *Perengrine falcon (Falco peregrinus)*. The Australian Museum, New South Wales. Available from: <https://australian.museum/learn/animals/birds/peregrine-falcon/> (accessed August 2022).
- City of Busselton (2022) *Clearing permit application form and supporting document CPS 10000/1*, received 12 December 2022 (DWER Ref: DWERDT698322).
- Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2023a) *Fauna facts: Red-tailed Phascogales*, available at: [https://www.dpaw.wa.gov.au/images/documents/plants-animals/animals/animal\\_profiles/Phascoagales\\_fauna\\_facts.pdf](https://www.dpaw.wa.gov.au/images/documents/plants-animals/animals/animal_profiles/Phascoagales_fauna_facts.pdf)
- Department of Biodiversity, Conservation and Attractions (DBCA) (2023a) *Brush-tailed Phascogale, Phascogale tapoatafa (Meyer, 1793)*, available at: <https://library.dbca.wa.gov.au/static/FullTextFiles/071549.pdf>
- Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2023). *Species Profile and Threats Database. Pseudocheirus occidentalis — Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit*. Department of Climate Change, Energy, the Environment and Water, Australian Government (accessed February 14, 2023).
- Department of Environment and Conservation (Western Australia) (DEC) (2012a). *Fauna profile, western ringtail possum Pseudocheirus occidentalis (Thomas, 1888)*. Available at: [http://www.dec.wa.gov.au/publications/cat\\_view/365-fauna-management/370-fauna-species-profiles.htm](http://www.dec.wa.gov.au/publications/cat_view/365-fauna-management/370-fauna-species-profiles.htm)
- Department of Environment and Conservation (DEC) (2012b). *Chuditch (Dasyurus geoffroii) Recovery Plan. Wildlife Management Program No. 54*. Department of Environment and Conservation, Perth, Western Australia. Available from: <http://www.environment.gov.au/biodiversity/threatened/recovery-plans/dasyurus-geoffroii-2012>. In effect under the EPBC Act from 22-Mar-2013.
- Department of Environment and Conservation (DEC) (2012c) *Fauna profiles: Quenda, Isoodon obesulus fusciventer*. Department of Environment and Conservation, Western Australia.
- Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: [https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2\\_assessment\\_native\\_veg.pdf](https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf).
- Department of the Environment and Energy (DoEE) (2013) *Approved Conservation Advice for Pseudocheirus occidentalis (western ringtail possum) (s266B of the Environment Protection and Biodiversity Conservation Act 1999)*. Department of the Environment and Energy, Australian government. Available at: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/25911-conservation-advice.pdf>

Department of Primary Industries and Regional Development (DPIRD) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development*. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (accessed 15 February 2023).

Department of Sustainability, Environment, Water, Population and Communities (DSEWPC) (2012) *EPBC Act referral guidelines for three threatened black cockatoo species: Carnaby's cockatoo (endangered) Calyptorhynchus latirostris, Baudin's cockatoo (vulnerable) Calyptorhynchus baudinii, Forest red-tailed black cockatoo (vulnerable) Calyptorhynchus banksii naso*. Department of Sustainability, Environment, Water, Population and Communities (now the Department of Agriculture, Water and Environment), Canberra.

Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. Available from: [https://dwer.wa.gov.au/sites/default/files/Procedure\\_Native\\_vegetation\\_clearing\\_permits\\_v1.PDF](https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF).

de Tores PJ (2008). *Western ringtail possum, Pseudocheirus occidentalis*. In C. Van Dyck, & R. Strahan, *The Mammals of Australia* (pp. 253-255). Chatswood, Australia: Reed New Holland.

Environmental Protection Authority (EPA) (2016). *Technical Guidance – Terrestrial Fauna Surveys*. Available from: [https://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf](https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf).

Government of Western Australia. (2019a) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>

Government of Western Australia (2019b) *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>

Groom, C. (2021) *Plants Used by Carnaby's Black Cockatoo*. Department of Environment and Conservation (DEC- predecessor of the Department of Parks and Wildlife (DPaW) and the Department of Water and Environment Regulation (DWER)), Western Australia. Available from: [https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/carnabys/Plants\\_used\\_by\\_Carnabys\\_black\\_cockatoo\\_20110415.pdf](https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/carnabys/Plants_used_by_Carnabys_black_cockatoo_20110415.pdf)

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