

M01 Tuart woodlands assessment (Rev A)

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## Assessment of Tuart Woodlands and Forests of the Swan Coastal Plain TEC

### 1. Introduction

A detailed flora and vegetation survey was conducted over Lot 9000 Wanneroo Road, Sinagra (Project Area) in spring 2017 (Strategen 2017). Since the completion of the survey and reporting, the ecological community Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain, has been listed as a Threatened Ecological Community (Critically Endangered) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

This community is considered to have the potential to occur within the Project Area. Given this, an assessment against the diagnostic criteria in the *Approved Conservation Advice (incorporating listing advice) for the Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain ecological community* (DoEE 2019) has been undertaken, using data collected in the 2017 survey (Strategen 2017).

### 2. Results

An assessment against the diagnostic criteria has been undertaken, Table 1 and Table 2. This assessment concludes that Tuart woodlands are present within the Survey Area, occurring across two separate patches (Figure 3.1). The total area of TEC within the Project area is 2.60 ha.

Areas mapped as Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain TEC, are also considered to represent the state level community Banksia Woodlands of the Swan Coastal Plain PEC. This listing is not subject to condition criteria. Given this, there is a total area of 2.60 ha within the survey area.

**Table 1: Assessment of vegetation within the Survey Area against key diagnostic criteria for Tuart Woodlands of the Swan Coastal Plain TEC**

Key diagnostic criteria (TSSC 2019)	Assessment of vegetation within the Survey Area
<p><u>Location:</u> Occurs in the Swan Coastal Plain Bioregion, Western Australia (IBRA v7. Department of the Environment 2012).</p>	<p><b>Yes.</b> The Survey area is located within the Swan Coastal Plain Bioregion.</p>
<p><u>Soils and landform:</u> Primarily occurs on the Spearwood and Quindalup dune systems, but can also occur on the Bassendean dunes and Pinjarra Plain. It can occur on the banks of rivers and wetlands.</p>	<p><b>Yes.</b> The Survey area occurs on Spearwood dune system.</p>
<p><u>Structure and composition:</u> Defining features include:</p> <ul style="list-style-type: none"> <li>the presence of at least two living established <i>Eucalyptus gomphocephala</i> (Tuart) trees in the uppermost canopy layer, although they may co-occur with trees of other species.</li> <li>a gap of no more than 60 m between the outer edges of the canopies of adjacent Tuart trees. These trees may occur either as single stemmed trees or as a mallee growth form.</li> <li>woodland structure, or other structural forms such as forest, open forest, woodland, open woodland, and various mallee forms</li> <li>an understorey of native plants which may include grasses, herbs and shrubs; though this is typically present, it is often modified by disturbance</li> <li>other tree species may be present in the canopy or sub-canopy, commonly including: <i>Agonis flexuosa</i> (Peppermint) and <i>Banksia grandis</i> (Bull Banksia) (both in the southern part of the range), <i>Banksia attenuata</i> (Candlestick Banksia), <i>Eucalyptus marginata</i> (Jarrah); and less commonly, <i>Corymbia calophylla</i> (Marri), <i>Banksia menziesii</i> (Firewood Banksia) and <i>Banksia prionotes</i> (Acorn Banksia).</li> </ul>	<p><b>Yes.</b> Vegetation within patches occur as a woodland to open woodland with at least two living established <i>Eucalyptus gomphocephala</i> (Tuart) trees in the uppermost canopy layer.</p>

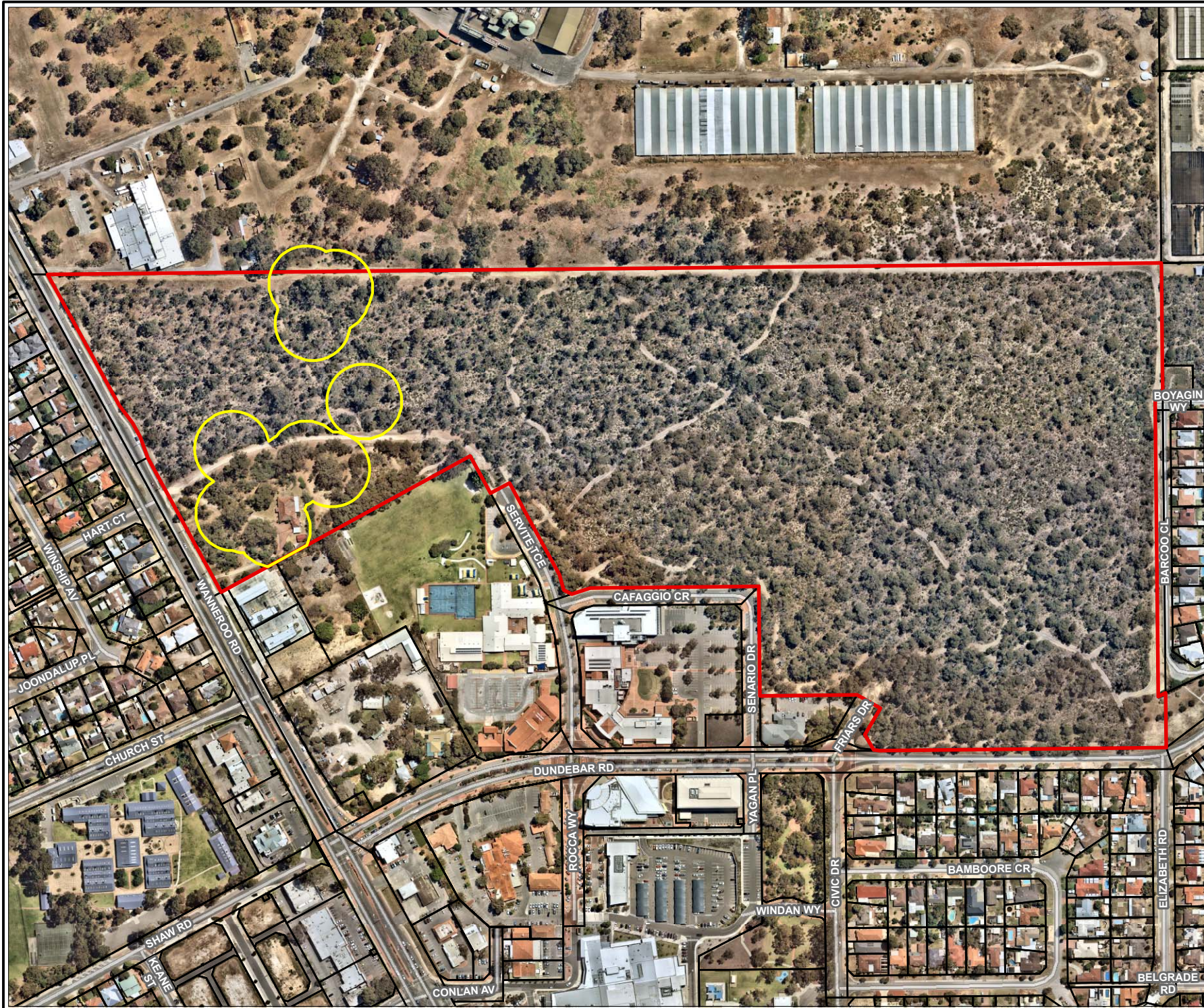
**Table 2: Assessment of Tuart Woodlands patches against condition thresholds**

Patch	Criteria						Result
	Assessment Sites	Area (ha)	Native Species Richness per 0.01ha	Proportion of native understorey cover per 0.01 ha	Density of large trees per 0.5ha	Condition (TSSC 2019)*	
1	Q04, R01 (not within patch but adjacent)	<b>1.98 ha</b> within Survey Area; patch extends beyond boundary of Survey Area to total area of <b>2.00 ha</b>	19	90%	2.25	Very High	<p><b>TEC present:</b></p> <ul style="list-style-type: none"> <li>Very high condition</li> <li>Patch has a habitat role</li> <li>Patch size <math>\geq 2</math> ha</li> </ul>
2	Q04, R01 (not within patch but adjacent)	<b>0.62 ha</b> within survey area; patch extends beyond boundary of Survey Area to total area of <b>0.78 ha</b> .	19	90%	4	Very High	<p><b>TEC present:</b></p> <ul style="list-style-type: none"> <li>Very high condition</li> <li>Patch has a habitat role</li> <li>Patch size <math>\geq 2</math> ha</li> </ul>

\* Condition is based on criteria set out in Table 2 of Approved Conservation Advice (incorporating listing advice) for the Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain ecological community (DoEE 2019)


### 3. Conclusions

The project area contains 2.60 ha of the EPBC Act listed Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain TEC, a matter of national environmental significance (MNES). Should a proposal have the potential to have a significant impact on this community, a referral to the Department of the Environment and Energy should be considered. The recent listing of this community limits the ability to recommend likely significance of an action impact the Tuart Woodlands TEC, given the lack of preceding projects needing to consider the TEC. As such, it is difficult to determine the likely implications for the approval process.



**Legend:**


- Survey area
- Tuart woodlands TEC
- Cadastral boundary
- Roads (MRWA)

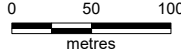
  

  

Job No: 57868

Client: Woodsome Management

Version: A	Date 12/12/2019
Drawn By: cthatcher	Checked By: TS

Scale 1:4,750 



0      50      100  
metres

**Lot 900 Wanneroo Rd  
Perth, WA**

**EXTENT OF TUART WOODLANDS TEC**

**FIGURE 1**

#### 4. References

Department of the Environment and Energy (DoEE), 2019, *Approved Conservation Advice (incorporating listing advice) for the Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain ecological community*, Canberra: Department of the Environment and Energy. Available from: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/153-conservation-advice.pdf>.

Strategen Environmental (Strategen), 2017, *Lot 9000 Corner Wanneroo and Dundobar Roads, Sinagra – Flora, vegetation and Black Cockatoo habitat survey*, unpublished report prepared for The Order of the Servants of Mary Incorporated C/- Woodsome Management Pty Ltd.