

Our Ref: 18GAT03FF

16 June 2021

GAT and Associates Pty Ltd Suite 15 Level 1 469-475 Parramatta Road LEICHHARDT NSW 2040

Attention: Mr. Gerard Turrisi

Dear Gerard

#### Re: Addendum Koala Assessment Report - SEPP 2021 (Koala Habitat Protection) for Lot 71 DP 706546, St Andrews Road, Varroville NSW

This addendum Koala Assessment Report has been prepared by Mr Geoffrey Coates (Fauna Ecologist) to update the Koala assessment provided within Section 4.3.4 of the Flora and Fauna Assessment Report (BDAR - *Travers bushfire & ecology*, 2021) taking into consideration the requirements of the SEPP 2021 (Koala Habitat Protection) and the Comprehensive Koala Plan of Management (CKPoM) for Campbelltown.

# SEPP (Koala Habitat Protection) 2021

The State Environmental Planning Policy (Koala Habitat Protection) 2021 was made and commenced on 17 March 2021.

The Koala SEPP 2021 reinstates the policy framework of SEPP Koala Habitat Protection 2019 to 83 Local Government Areas (LGA) in NSW. At this stage:

- In nine of these LGAs Metropolitan Sydney (Blue Mountains, Campbelltown, Hawkesbury, Ku-Ring-Gai, Liverpool, Northern Beaches, Hornsby, Wollondilly) and the Central Coast LGA Koala SEPP 2021 applies to **all zones**.
- In all other identified LGAs, Koala SEPP 2021 **does not apply** to land zoned RU1 Primary Production, RU2 Rural Landscape or RU3 Forestry.

For all RU1, RU2 and RU3 zoned land outside of the Sydney Metropolitan Area and the Central Coast, Koala SEPP 2020 continues to apply. This is an interim measure while new land management and private native forestry codes are developed in line with the NSW Government's announcement on 8 March 2021.



The principles of the Koala SEPP 2021 are to:

- Help reverse the decline of koala populations by ensuring koala habitat is properly considered during the development assessment process.
- Provide a process for councils to strategically manage koala habitat through the development of koala plans of management.

The Koala SEPP 2021 applies to all zones of the City of Campbelltown unless an approved Koala Plan of Management is in force. The Campbelltown Comprehensive Koala Plan of Management 2018 applies to this site. The development application must be consistent with that plan. This applies to land of any size, not just land of more than 1 hectare.

# Comprehensive Koala Plan of Management (Campbelltown)

An approved Comprehensive Koala Plan of Management (CKPoM) for Campbelltown was prepared by Dr Stephen Phillips (*Biolink*) in 2018. Compliance with the CKPoM will constitute compliance with the provisions of SEPP 2021 (Koala Habitat Protection).

The study area is currently zoned E3 Environmental Management. The proposal is for the rezoning of the lands to the north-western side of the powerline easement and subsequent residential subdivision. The proponents are intending to offset the impacts through the NSW Biodiversity Offsets Scheme. The project is however being assessed under the transitional provisions of the *TSC Act*.

The remaining lands on the south-eastern side of the powerline easement are to be zoned as E2 Environmental Conservation and are likely to have in the future either a restriction of the use of that title under an 88B Instrument or a conservation agreement of some form which may or may not include a Biodiversity Stewardship Agreement under the *BC Act*.

Future works within the E2 lands will also include a single dwelling with associated works and 10m wide APZ, a constructed access road, and a stormwater detention basin.

In response to the need to provide a secondary access for evacuation in the event of a bushfire in accordance with Planning for Bushfire Protection 2019, a road is proposed to connect the existing subdivision off Grantham Crescent. The proposed road and the existing subdivision is the subject of this addendum. The entire study area encompasses approximately 14.72 hectares, while the development footprint will encompass approximately 7.81 hectares.

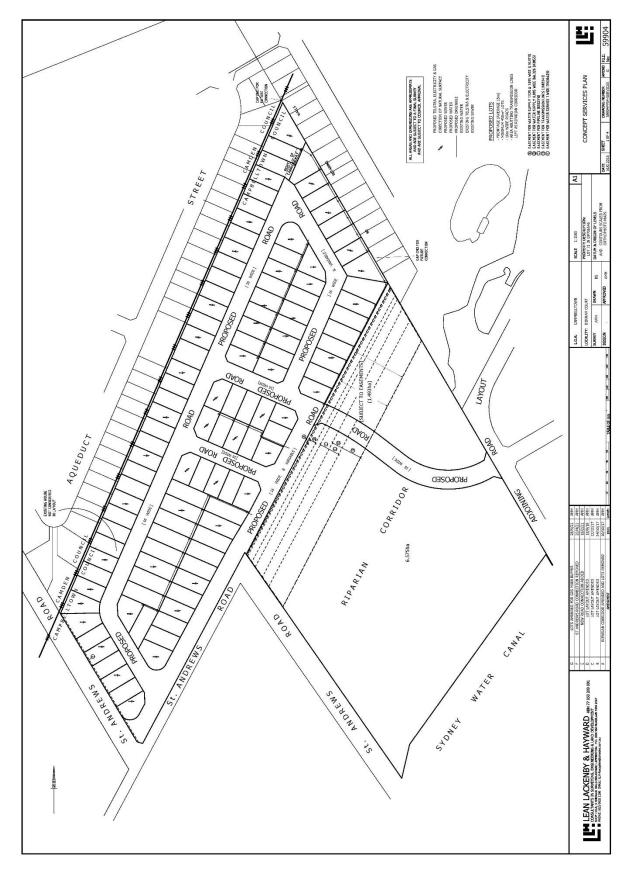
The road proposal will result in the removal of 254 trees within the proposed subdivision lands and access roads. The locations of these trees are shown in Figure 3, with the specifications of each tree recorded in Appendix 1 (Table 2).





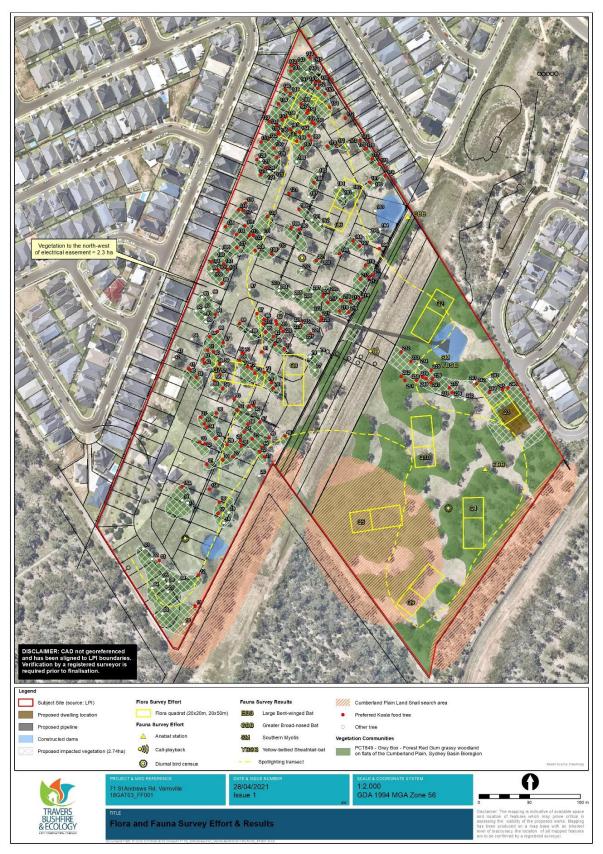
Figure 1 - Study Area











#### Figure 3 – Preferred Koala Feed Trees (PKFT)

(PKFT species are represented with red dots. All other trees are represented with white dots).



An approved Comprehensive Koala Plan of Management (CKPoM) for Campbelltown was prepared by Dr Stephen Phillips (*Biolink*) in 2018. Compliance with the CKPoM will constitute compliance with the provisions of SEPP 2021 (Koala Habitat Protection).

#### Development Assessment Framework (CKPoM)

In accordance with 6.2.2 Assessment and control standards

(i) A DA for any land the subject of Clause 6.1 (reproduced below) above must include an assessment of the proposed development against the flowchart located in Figure 6.

(ii) Council cannot approve a DA that does not conform to the required controls and standards arising from this part unless:

- a) there are proven to be extenuating circumstances
- b) the overarching objectives of the Plan are not unduly compromised
- c) any proposed deviation has the support of the KMC.

With consideration to the application of the Development Assessment Framework in Figure 6.1) the following process and criteria is of most relevance:

- 1. The study area is located within the Campbelltown LGA;
- 2. The study area has an area of > 1 hectare;
- 3. The proposal will require the removal of vegetation, namely 254 trees that form approximately 7.81 ha of highly modified Cumberland Plain Woodland;
- 4. The study area is not mapped as 'Core Koala Habitat' on Figure 5.1 of the CKPoM;
- 5. The study area encompasses areas identified as 'Potential Koala Habitat' on Figure 5.1 of the CKPoM;
- 6. A Koala Activity Assessment Report (KAAR) is required in accordance with Section 6.3.2.
- The CKPoM specifies that the KAAR is to employ the methodology outlined in Appendix B of the CKPoM. This methodology includes a survey in accordance with the Spot Assessment Technique (SAT) described by Phillips and Callaghan (2011). This is to be undertaken in a grid-based layout.

One SAT incorporates a survey of 30 trees for Koala activity. With 254 trees, this would permit for 8 SATs within the development proposal. No SAT technique was undertaken during tree survey on 15th or 20th April 2021 for the Flora and Fauna Assessment Report. Survey did however include a search for activity below each of the trees present. No Koala activity was recorded from this survey.

Given the extent of nearby core Koala habitat along the Georges River Reserve and demonstrated from historical records, Koalas periodically disperse and take up temporary habitat within the remaining remnant fragments in the nearby urban landscape to the south-east. The site would not be expected to contribute to any established 'Core Koala Habitat' within the locality and activity levels will likely be less than 10%.

8. Based on activity level of less than 10%, the DA would be required to conform to the planning controls for Potential Koala Habitat (described in full under Section 6.4 of the CKPoM). As this is a planning proposal, these controls would be applied at the subdivision DA. The following types of controls may apply to be assessed at the subdivision DA:



- (a) Retention of PKFTs and shelter trees, as demonstrated by the applicant to the satisfaction of the council
- (b) All new swimming pools must incorporate a design component such as a shallow ramp or other feature that will enable egress by koalas; and/or a stout rope (> 50 mm diameter), one end of which must be secured to a stable poolside fixture, the other end of which must trail in the pool. Without contravening provisions of the Swimming Pools Act 1992, fencing must also be of a type that prevents access to the pool area by koalas (eg not be of timber or have timber posts or have shrubs and trees within 1m of either side of the fence that would allow koalas to climb over).
- (c) On any new residential lots arising from the subdivision of land, the keeping of domestic dogs will be either prohibited or subject to a covenant; imposing a legal requirement to install a dog-proof yard, whether the prospective owner has the immediate intention of owning a dog or not, as well as additional requirements designed to deter Koalas from yards which could potentially house dogs in the future.
- (d) Fencing of residential lots must not impede the movement of koalas. Fences that are not supported by this Plan, include (but are not limited to): colourbond panel fencing, barbed wire fencing, solid brick fencing (>1m high), steel fencing (>30cm gaps between rails)
- (e) Road design standards and/or approved vehicle calming devices (eg speed humps, roundabouts, chicanes and wildlife activated signage) must be incorporated on any new roads created through residential subdivision with a maximum speed of 40km/hr.
- (f) Protection of existing Koalas from disturbance as a result of clearing or other earthworks



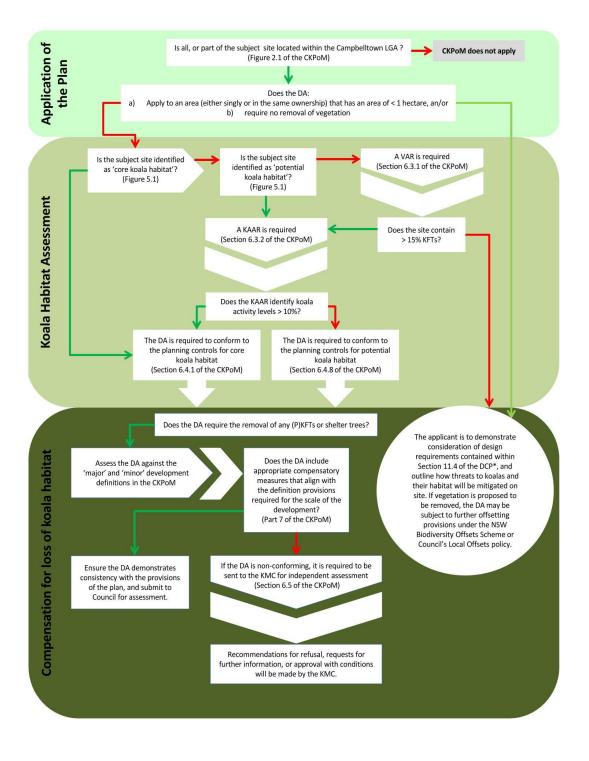


Figure 6.1: Development Assessment framework flowchart

Campbelltown Comprehensive Koala Plan of Management 2018 35



- 9. The proposal is classified as 'major' development as specified in the Comprehensive Koala Plan of Management (CKPoM) for Campbelltown.
- 10. Under 'Major Development' criteria (Section 7.1), where a proponent chooses to seek the removal of PKFTs or shelter trees in accordance with a DA, provision must be made to compensate for the loss of the associated habitat. This will be to either:
  - a) enter into a legally binding agreement with Council to make a monetary contribution towards the Koala Habitat Rehabilitation Program detailed in Part 8 of the CKPoM, or
  - b) enter into a legally binding agreement with Council to undertake rehabilitation works in areas identified by the Koala Rehabilitation Program detailed in Part 8 of the CKPoM. This will include payment of a Compensation Guarantee in the form of a Bank Bond which will be released once the required works have been implemented in accord with the agreement. The purpose of a Compensatory Guarantee is to allow Council to implement the required works in the event that the proponent is unable or unwilling to comply.

The amount of the monies referred to above will be based on the value of the required 'compensation units' (CU) (for every cm of DBH or part thereof) arising from the total number and size of PKFTs and shelter trees that will be removed, as follows:

(i) Small	(DBH < 100mm)	8 CU/mm of DBH
(ii) Medium	(DBH > 100<300mm)	15 CU/mm of DBH
(iii) Large	(DBH > 300mm)	25 CU/mm of DBH

The value of a CU as at the date of commencement of the Plan is \$1.00, this value to be adjusted annually using the CPI increase for the 12 months prior to the review date.

Based on the above, the removal of the 183 PKFTs would require a contribution or bond of \$2,114,100 under the CKPoM.

Campbelltown Council have a tree replacement policy with a requirement to offset the loss of trees with planted trees at a ratio of 8:1. From this policy alone, the minimum number of planted CPW trees required would be 2,032. The replanting of these trees could be undertaken in the lands zoned E2. Any trees that cannot be feasibly planted within the E2 lands may then form part of a monetary compensation or offset revegetation area.

# Koala Foraging Tree and CPW Revegetation Areas

A suggested location for offsetting removal of trees would be within the proposed E2 lands. This would serve to strengthen the CPW already in existence, and limit the need for wildlife (including Koalas) to disperse into the proposed sub-division. Appropriate fencing would also be recommended around the outer perimeter of the CPW area to deter Koala movements onto surrounding roads and urban areas containing dogs.

Records of Koala within a 10 km radius of the site are shown on Figure 4. While there have been no official records of Koalas on this particular site, there are records of Koalas moving through the urban landscape over the years, particularly from the Georges River to the southeast. This highlights the potential for Koalas to actively take up residence where sufficient feed trees and opportunity to overlap ranges between sexes occur.



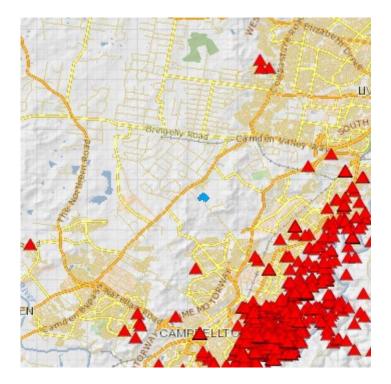


Figure 4 – Localised Koala Records (study area in blue)

(Source: *Bionet* 2021)

# Recommendations

*Travers bushfire & ecology* recommends that a vegetation management plan be prepared at the time of a DA identifying the locations of planting within the proposed E2 lands and to specify the vegetation management works to compensate for the loss of foraging trees caused by the future subdivision. This can be used as a means of providing appropriate revegetation offsets or a Koala offset contribution where the required offset planting cannot be provided.

Selective street planting may also be used as a supplementary measure where the planting can be demonstrated to be safely integrated into open landscapes. In this case high quality foraging species known to be of lower safety risk should be used such as Tallowwoods (*Eucalyptus microcorys*).

If you require any further information, please do not hesitate to the contact the undersigned on (02) 4340 5331 or at info@traversecology.com.au

Yours faithfully

Michael Sheather-Reid Managing Director - *Travers bushfire & ecology* 

Travers bushfire & ecology employs Bushfire Planning and Design (BPAD) Accredited Practitioners Travers bushfire & ecology employs Accredited BioBanking and Biodiversity Assessors



# Appendix 1. Trees Designated for Removal

The following table provides details of trees designated for removal under the proposed subdivision and road.

Tree Number	Scientific Name	Common Name	Diameter at Chest Height
001	Fuggluptus fibrasa	Broad-leaved Ironbark	(cm) 47/48
001	Eucalyptus fibrosa	Broad-leaved Ironbark	57
	Eucalyptus fibrosa		
003	Eucalyptus moluccana	Grey Box	56
004	Eucalyptus fibrosa	Broad-leaved Ironbark	52
005	Eucalyptus fibrosa	Broad-leaved Ironbark	50
006	Eucalyptus fibrosa	Broad-leaved Ironbark	55
007	Eucalyptus fibrosa	Broad-leaved Ironbark	55
008	Eucalyptus fibrosa	Broad-leaved Ironbark	60
009	Eucalyptus fibrosa	Broad-leaved Ironbark	65
010	Eucalyptus fibrosa	Broad-leaved Ironbark	75
011	Eucalyptus longifolia	Woollybutt	60
012	Eucalyptus longifolia	Woollybutt	50
013	Eucalyptus fibrosa	Broad-leaved Ironbark	11/32/41
014	Eucalyptus fibrosa	Broad-leaved Ironbark	49/42
015A	Eucalyptus moluccana	Grey Box	52/47
015B	Eucalyptus moluccana	Grey Box	67
016	Eucalyptus moluccana	Grey Box	53
017	Eucalyptus moluccana	Grey Box	32
018	Eucalyptus fibrosa	Broad-leaved Ironbark	26
019	Eucalyptus fibrosa	Broad-leaved Ironbark	36
020	Eucalyptus fibrosa	Broad-leaved Ironbark	40/40
021	Eucalyptus moluccana	Grey Box	43
022	Eucalyptus moluccana	Grey Box	52
023	Eucalyptus moluccana	Grey Box	72
024	Eucalyptus moluccana	Grey Box	32/38
025	Eucalyptus moluccana	Grey Box	45
026	Eucalyptus moluccana	Grey Box	28/39
027	Eucalyptus moluccana	Grey Box	35
028	Eucalyptus moluccana	Grey Box	38
029	Eucalyptus moluccana	Grey Box	45
030	Eucalyptus moluccana	Grey Box	45
031	Eucalyptus moluccana	Grey Box	48
032	Eucalyptus moluccana	Grey Box	42
033	Eucalyptus moluccana	Grey Box	50
034	Eucalyptus moluccana	Grey Box	46
035	Eucalyptus moluccana	Grey Box	46
036	Eucalyptus moluccana	Grey Box	31
037	Eucalyptus moluccana	Grey Box	47
038	Eucalyptus moluccana	Grey Box	51
039	Eucalyptus fibrosa	Broad-leaved Ironbark	52
040	Eucalyptus moluccana	Grey Box	42
040	Eucalyptus moluccana	Grey Box	30
041	Eucalyptus fibrosa	Broad-leaved Ironbark	27/32
042	Eucalyptus fibrosa	Broad-leaved Ironbark	
045	Eucuryptus Jibrosa	BIOAU-leaved Ironbark	36

# Table 2 – Trees designated for removal.



Tree Number	Scientific Name	Common Name	Diameter at Chest Height (cm)
044	Eucalyptus moluccana	Grey Box	29
045	Eucalyptus moluccana	Grey Box	28
046	Eucalyptus moluccana	Grey Box	40
047	Eucalyptus moluccana	Grey Box	42
048	Eucalyptus moluccana	Grey Box	36
049	Eucalyptus fibrosa	Broad-leaved Ironbark	39
050	Eucalyptus moluccana	Grey Box	44
051	Eucalyptus moluccana	Grey Box	30
052	Eucalyptus moluccana	Grey Box	52
053	Eucalyptus moluccana	Grey Box	40
054	Eucalyptus moluccana	Grey Box	55/48
055	Eucalyptus fibrosa	Broad-leaved Ironbark	52
056	Eucalyptus moluccana	Grey Box	38
057	Eucalyptus moluccana	Grey Box	35
058	Eucalyptus moluccana	Grey Box	30
059	Eucalyptus fibrosa	Broad-leaved Ironbark	51
060	Eucalyptus moluccana	Grey Box	32
061	Eucalyptus moluccana	Grey Box	35
			46
062	Eucalyptus moluccana	Grey Box	
063	Eucalyptus moluccana	Grey Box	46
064	Eucalyptus fibrosa	Broad-leaved Ironbark	58
065	Eucalyptus moluccana	Grey Box	40
066	Eucalyptus moluccana	Grey Box	54
067	Eucalyptus moluccana	Grey Box	51
068	Eucalyptus moluccana	Grey Box	50
069	Eucalyptus moluccana	Grey Box	35
070	Eucalyptus moluccana	Grey Box	34
071	Eucalyptus moluccana	Grey Box	34
072	Eucalyptus moluccana	Grey Box	33
073	Eucalyptus moluccana	Grey Box	59
074	Eucalyptus moluccana	Grey Box	35
075	Eucalyptus moluccana	Grey Box	90
076	Eucalyptus moluccana	Grey Box	44
077	Eucalyptus fibrosa	Broad-leaved Ironbark	60
078	Eucalyptus fibrosa	Broad-leaved Ironbark	65
079	Eucalyptus fibrosa	Broad-leaved Ironbark	62
079	Eucalyptus moluccana	Grey Box	35
080	Eucalyptus moluccana	Grey Box	45
081	Eucalyptus moluccana	Grey Box	30
082	Eucalyptus moluccana	Grey Box	40
083	Eucalyptus moluccana	Grey Box	45
084	Eucalyptus moluccana	Grey Box	46
085	Eucalyptus moluccana	Grey Box	48/53
086	Eucalyptus moluccana	Grey Box	36
087	Eucalyptus moluccana	Grey Box	41
088	Eucalyptus fibrosa	Broad-leaved Ironbark	62
089	Eucalyptus moluccana	Grey Box	43
090	Eucalyptus fibrosa	Broad-leaved Ironbark	43
091	Eucalyptus fibrosa	Broad-leaved Ironbark	52
092	Eucalyptus fibrosa	Broad-leaved Ironbark	52
093	Eucalyptus fibrosa	Broad-leaved Ironbark	50
094	Eucalyptus moluccana	Grey Box	56
095	Eucalyptus fibrosa	Broad-leaved Ironbark	51



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Tree Number	Scientific Name	Common Name	Diameter at Chest Height (cm)
149	Eucalyptus moluccana	Grey Box	30
150	Eucalyptus moluccana	Grey Box	27
151	Eucalyptus moluccana	Grey Box	38
152	Eucalyptus moluccana	Grey Box	33
153	Eucalyptus moluccana	Grey Box	36
154	Eucalyptus moluccana	Grey Box	39
155	Eucalyptus fibrosa	Broad-leaved Ironbark	50
156	Eucalyptus moluccana	Grey Box	33
157	Eucalyptus moluccana	Grey Box	40
158	Eucalyptus moluccana	Grey Box	40
159	Eucalyptus moluccana	Grey Box	30
160	Eucalyptus moluccana	Grey Box	40
161	Eucalyptus moluccana	Grey Box	39
162	Eucalyptus moluccana	Grey Box	30
163	Eucalyptus moluccana	Grey Box	47
164	Eucalyptus moluccana	Grey Box	54
165	Eucalyptus moluccana	Grey Box	40
166	Eucalyptus moluccana	Grey Box	35
167	Eucalyptus moluccana	Grey Box	22/41/36
168	Eucalyptus moluccana	Grey Box	35
169	Eucalyptus fibrosa	Broad-leaved Ironbark	54
170	Eucalyptus moluccana	Grey Box	45
170	Eucalyptus moluccana	Grey Box	45
172	Eucalyptus moluccana	Grey Box	50
172	Eucalyptus bosistoana	Coast Grey Box	55
174	Eucalyptus moluccana	Grey Box	46
175	Eucalyptus moluccana	Grey Box	32/30
175	Eucalyptus moluccana	Grey Box	52/30
177	Eucalyptus moluccana	Grey Box	50
178	Eucalyptus moluccana	Grey Box	46
179	Eucalyptus moluccana	Grey Box	64
180	Eucalyptus bosistoana	Coast Grey Box	55
180	Eucalyptus moluccana	Grey Box	55
181	Eucalyptus fibrosa	Broad-leaved Ironbark	48
182	Eucalyptus fibrosa	Broad-leaved Ironbark	50
183	Eucalyptus fibrosa	Broad-leaved Ironbark	48
184	Eucalyptus fibrosa	Broad-leaved Ironbark	37/42
185	Eucalyptus moluccana	Grey Box	49
180	Eucalyptus fibrosa	Broad-leaved Ironbark	49
187	Eucalyptus moluccana	Grey Box	49
189	Eucalyptus moluccana		40
189	Eucalyptus moluccana	Grey Box	53
190		Grey Box N/A	55
	unknown	N/A	
192	unknown		65
193	Eucalyptus fibrosa	Broad-leaved Ironbark	53
194	Eucalyptus fibrosa	Broad-leaved Ironbark	50
195	Eucalyptus fibrosa	Broad-leaved Ironbark	55
196	Eucalyptus moluccana	Grey Box	68
197	Eucalyptus moluccana	Grey Box	50
198	Eucalyptus moluccana	Grey Box	60
199	Eucalyptus moluccana	Grey Box	40/43
200	Eucalyptus moluccana	Grey Box	55
201	Eucalyptus moluccana	Grey Box	45



Tree Number	Scientific Name	Common Name	Diameter at Chest Height (cm)
202	unknown	N/A	54
203	Eucalyptus fibrosa	Broad-leaved Ironbark	54
204	Eucalyptus fibrosa	Broad-leaved Ironbark	64
205	Eucalyptus fibrosa	Broad-leaved Ironbark	49
206	Eucalyptus fibrosa	Broad-leaved Ironbark	54
207	unknown	N/A	56
208	Eucalyptus moluccana	Grey Box	46
209	Eucalyptus moluccana	Grey Box	30/35
210	Eucalyptus moluccana	Grey Box	60
211	Eucalyptus moluccana	Grey Box	50
212	Eucalyptus moluccana	Grey Box	47
213	Eucalyptus moluccana	Grey Box	60
214	Eucalyptus moluccana	Grey Box	40
215	Eucalyptus moluccana	Grey Box	32/33
216	Eucalyptus moluccana	Grey Box	47
217	Eucalyptus moluccana	Grey Box	48
218	Eucalyptus moluccana	Grey Box	45
219	Eucalyptus moluccana	Grey Box	45
220	Eucalyptus moluccana	Grey Box	40
220	Eucalyptus moluccana	Grey Box	55
222	Eucalyptus fibrosa	Broad-leaved Ironbark	45
222	Eucalyptus moluccana	Grey Box	54
223	Eucalyptus fibrosa	Broad-leaved Ironbark	50
224	Eucalyptus moluccana	Grey Box	38
225	Eucalyptus moluccana	Grey Box	45
220	Eucalyptus fibrosa	Broad-leaved Ironbark	56
227	Eucalyptus moluccana		45
228		Grey Box	
229	Eucalyptus moluccana	Grey Box	48 54
230	Eucalyptus moluccana	Grey Box	34
231	Eucalyptus moluccana	Grey Box	
	Eucalyptus moluccana	Grey Box	46
233	Eucalyptus moluccana	Grey Box	39
234	Eucalyptus fibrosa	Broad-leaved Ironbark	35
235	Eucalyptus moluccana	Grey Box	40
236	Eucalyptus tereticornis	Forest Red Gum	33
237	Eucalyptus tereticornis	Forest Red Gum	41
238	Eucalyptus tereticornis	Forest Red Gum	33
239	Melaleuca decora	White Feather Honeymyrtle	31
240	Eucalyptus eugenioides	Thin-leaved Stringy Bark	34
241	Eucalyptus eugenioides	Thin-leaved Stringy Bark	29
242	Eucalyptus tereticornis	Forest Red Gum	39
243	Eucalyptus eugenioides	Thin-leaved Stringy Bark	54
244	Eucalyptus moluccana	Grey Box	34
245	Eucalyptus moluccana	Grey Box	42
246	Eucalyptus moluccana	Grey Box	53
247	Eucalyptus moluccana	Grey Box	31
248	Eucalyptus moluccana	Grey Box	49
249	Eucalyptus moluccana	Grey Box	32
250	Eucalyptus moluccana	Grey Box	32
251	Eucalyptus moluccana	Grey Box	35
252	Eucalyptus tereticornis	Forest Red Gum	42