

Tolland Renewal Project

Notable Tree Inventory

A Report to;

Prepared by;



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August 2023
Ref. 23/462.



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Notable Trees within the Tolland Renewal Project Area, Wagga Wagga.

1 Introduction

Mark D. McCrone, consulting Arborist and Landscape Architect, has been engaged by John Sutcliffe, Stantec, to undertake an overview of extant trees on the area of the proposed Tolland Renewal Project, Wagga Wagga. This overview's observations and recommendations regarding the subject trees are recorded and discussed in the following report.

2 Report Background, Purpose and Scope

As part of the design development for the proposed Tolland Renewal Project the development's proponents have undertaken an overview assessment of the trees on the project area. The subject trees were inspected and photographed, and information on them recorded, during August 2023.

The tree overview assessment will provide;

- an identification and recording of trees adjudged to “notable” specimens within the current urban fabric of the project area; and
- a description of the trees' species, and mapping of those trees within the project area.

The development site's location is shown in Exhibits 1a. and 1b. Mapping of the trees within the project area which were considered “notable” is included as Appendix B.



Exhibit 1a. – Locality Plan (North); the approximate extent of the Tolland Renewal Project area.

Source; <https://maps.wagga.nsw.gov.au/intramaps90>.

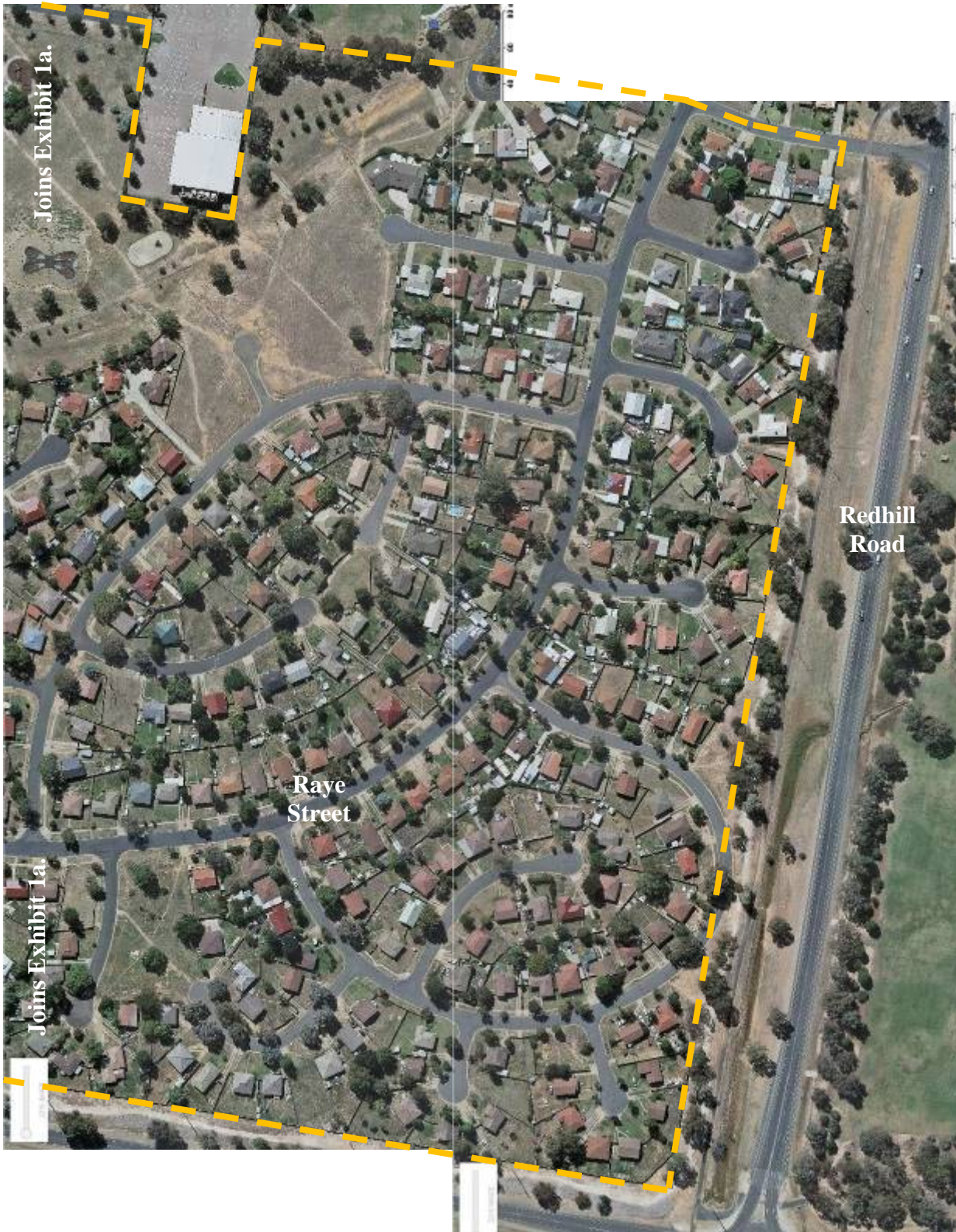


Exhibit 1b. – Locality Plan (South); the approximate extent of the Tolland Renewal Project area.

Source; <https://maps.wagga.nsw.gov.au/intramaps90>.



Exhibit 2 – Historical aerial photograph, dated 1971, showing the approximate boundary of the Renewal Project site. None of the trees shown within the project area in this image remain. Source; <https://maps.wagga.nsw.gov.au/intramaps90>.



Exhibit 3 – Concept Plan (Open Space Network) for the proposed Tolland Renewal Project.

Source; Stantec / NSW DPI&E

3 Tree Recording & Description

The identification and recording of notable trees on the site of the proposed Tolland Renewal Project was undertaken using the following methodology.

A “drive by” windscreen survey was employed to identify trees of visual significance in the private residential areas of the project site. This was limited to public areas only and no access to private property was undertaken, although some trees visible from public thoroughfares have been documented. The public open space precincts of the project area were “walked” to identify any notable trees. This field work was supplemented by a review of recent aerial photography, sourced from the Wagga Wagga City Council’s Intra Maps platform, to scan for trees of larger canopy extent. All observations from the aerial photography review were then field checked. The locations of the trees identified as “notable” are shown on the plan included as Appendix B of this report and they are Tablulated in Appendix A.

The tree locations were recorded in the field using the *Avenza Maps Pro* mobile mapping app. Each tree was identified to species. Where the trees were readily accessible they were visually inspected by an “on ground” inspection for any detectable “defects”, symptoms and/or decay; neither excavation for root crown investigation, nor an aerial inspection of the trees’ canopy, was conducted. A visual recording (via photography) of the trees’ current physical form was also undertaken and is presented as Appendix C.

Given the general nature of the overview conducted, a hierarchical rating was not attributed to the trees. They generally accorded with what would be described as being of either a High or Very High Significance in most applicable such rating systems, fitting a general description as a medium or large tree (10 to 25 metres in height) in good/excellent condition, suited to local environment or imposing within the local landscape with a long life expectancy. This life expectancy parameter excluded some specimens of species such as *Eucalyptus bicostata* (Southern Blue Gum) or *Fraxinus* Raywood (Claret Ash), which were approaching the latter stages of their life expectancy in the local conditions. Most of the trees recorded were considered to be of mature size for the site and species with no sign of decline. Where it was not possible to undertake a visual “on ground” inspection from a reasonable proximity to the tree they were excluded from the recording.

As evidenced from the historical aerial photography (dated 1971) – see Exhibit 2 - also sourced from the Wagga Wagga City Council’s Intra Maps platform, there were no trees that would be considered as being of Very High Environmental Rating – that of an old growth Remnant Tree, with multiple hollows important to threatened or endangered fauna, the replacement of which would be well in excess of 150 years – although some of the recorded trees could be accorded a High Environmental Rating – large or mature Endemic Tree or Australian Native species that have high substitute values as an endemic tree with or without hollows, playing an important part in the local ecology, and the replacement of which would take 50-100 years.

4 Description of the trees' condition

The notable trees on the site of the proposed Tolland Renewal Project are listed in the Table included as Appendix A, mapped in Appendix B and photographs of the individual trees, copses and avenues (of the same species) are included as Appendix C. An historical aerial photograph, dated 1971, shows the study area with none of the current tree cover evident (see Exhibit 2), making the trees listed a maximum age approximately 50 years old.

The tree avenues included in this overview were of a single species of good vigour, numbering in excess of three specimens, that provided positive visual amenity to their landscape setting.

In most cases the notable trees are individual specimens, although some copses of two or three stems (and one of eleven) were included and treated as one for the purposes of this recording.

There are a number of copses of endemic tree species, dominated by *Eucalyptus melliodora* (Yellow Box) surrounding Chambers Park, particularly on its north, east and southern edges (see Exhibit 4). Due to the close proximity of those trees' original planting their form is of a more upright habit, due to competition between neighbouring trees, and while the copses provide environmental and amenity value, they are not considered (with some exceptions, see Tree Nos. 38 to 41) notable specimens as individuals.



Exhibit 4 – The typical form of copses of endemic tree species surrounding Chambers Park.

5 Discussion and Recommendations

As demonstrated by Exhibit 2, none of the extant trees on the project area pre-date its development for urban use from the 1970's.

43 trees within the project area, most of which are individual specimens, were considered notable due to their size, vigour and landscape amenity benefit to the urban fabric setting.

The great majority are Australian Native species, a reflection perhaps of the contemporary practice during the area's urban development to favour native species.

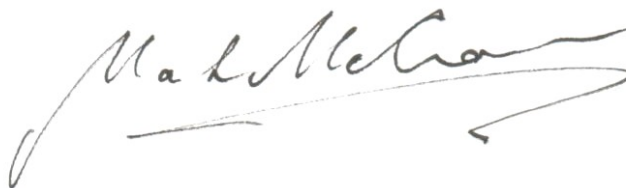
Of the 43 notable trees recorded (with copses being treated as a single entity) 36 (84%) are Australian Native species, with the majority of those (18, or 42% of the total number) endemic to the South West Slopes Botanical Subdivision (of New South Wales) and 26 (or 60%) are NSW Natives.

The Wagga Wagga Development Control Plan, 2010 (Section 5 - Natural Resource and Landscape Management, Sub-section 5.2 - Preservation of trees), under the heading "Significant Species", includes a Table – *Table 5.2.2 Native Species of Local Conservation Significance* – which lists only one species included in the 43 notable trees, the River Red Gum (*Eucalyptus camaldulensis*), which features as Tree 17. The River Red Gum is included in this listing because of its habitat value for native wildlife.

Three tree species – *Corymbia citriodora* (Lemon-scented Gum), *Eucalyptus melliodora* (Yellow Box) and *Eucalyptus sideroxylon* (Mugga Ironbark) – are each represented five times in the 43 notable trees listed, an illustration of the suitability of those species to the local environment.

All the trees recorded as notable in this report are in the Mature phase of their life cycles and therefore will be able to provide long term environmental and landscape amenity benefit to the altered urban landscape that results from the Tolland Renewal Project. Site planning for the project should aim to retain these trees wherever possible to ensure this on-going benefit.

Finally, it should also be noted that trees cannot be guaranteed 'risk free'. All trees represent some degree of risk. Arboriculture is not an exacting science; rather it is an educated interpretation of the interaction of edaphic and environmental circumstances which are, of course, subject to change over time. This report documents such an interpretation of evidence available at the time of the trees' inspection.



Mark McCrone
August 2023.

6 Further Information

Further details or clarification with respect to any matter raised by this report may be obtained from **Mark McCrone** on 04 0790 7958 or via email to larch_therock@bigpond.com.

DRAFT

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Appendix

A

Inventory of Existing Trees

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Annexure 1 - Tree Date File - Preliminary Overview for Tolland Renewal Project (August 2023)

Tree No	Lat	Lon	Species	Species Origin	NSW Native Veg	General Size	Age Class	Tree Vigour	Tree Structure	Factors, Observed Conditions or Issues Commentary on tree	Primary Reason for Recommendation	Current Urban Context
Tree 1	-35.1403156	147.3411936	<i>Corymbia citriodora</i>	Aus Native	No	Large	Mature	1	2	Residential property; rear of 2 Awaba	Significant Tree	Rear yard of residence
Tree 2	-35.14106957	147.3459866	<i>Jacaranda mimosifolia</i>	Exotic	No	Medium	Mature	1	2	Previously lopped at 3m	Positive amenity values	Front garden of residence
Tree 3	-35.14172256	147.3458809	<i>Quercus palustris</i>	Exotic	No	Medium	Mature	1	1	<i>Liquidambar styraciflua</i> shares canopy space to SW	Positive amenity values	Front garden of residence
Tree 4	-35.14222617	147.3457297	<i>Liquidambar styraciflua</i>	Exotic	No	Medium	Mature	1	1		Positive amenity values	Front garden of residence
Tree 5	-35.1427406	147.345614	<i>Phoenix canariensis</i>	Exotic	No	Medium	Mature	1	1		Positive amenity values	Front garden of residence
Tree 6	-35.14255358	147.3456504	<i>Callistemon viminalis</i>	NSW Native	Yes	Small	Mature	1	1	2 specimens in front garden of property	Sound tree suited to site	Front garden of residence
Tree 7	-35.14288904	147.3456424	<i>Liquidambar styraciflua</i>	Exotic	No	Medium	Mature	1	1		Positive amenity values	Front garden of residence
Tree 8	-35.14183896	147.3449471	<i>Eucalyptus botryoides</i>	NSW Native	Yes	Large	Mature	1	2		Significant Tree	Side curtilage of residence
Tree 9	-35.14169711	147.3451573	<i>Fraxinus oxycarpa</i>	Exotic	No	Medium	Mature	1	2	Street Tree	Positive amenity values	Street Tree
Tree 10	-35.1443877	147.3450291	<i>Angophora floribunda</i>	NSW Native	Yes	Medium	Mature	1	1		Significant Tree	Open Space Parkland
Tree 11	-35.14401887	147.3428848	<i>Eucalyptus sideroxylon</i>	Endemic	Yes	Large	Mature	2	2		Significant Tree	Rear yard of residence
Tree 12	-35.14358366	147.3418428	<i>Corymbia maculata</i>	NSW Native	Yes	Large	Mature	1	2	Lower laterals pruned off to 'lift' crown.	Significant Tree	Front garden of residence
Tree 13	-35.1431354	147.3410556	<i>Corymbia torelliana</i>	Aus Native	No	Large	Mature	1	2	Twin stems	Positive amenity values	Front garden of residence

Tree 14	-35.14482527	147.3408397	<i>Corymbia torelliana</i>	Aus Native	No	Medium	Mature	1	1		Positive amenity values	Front garden of residence
Tree 15	-35.14622716	147.3402455	<i>Corymbia citriodora</i>	Aus Native	No	Large	Mature	1	2		Significant Tree	Rear yard of residence
Tree 16	-35.1461846	147.3411316	<i>Eucalyptus cinerea</i>	NSW Native	Yes	Medium	Mature	1	1		Positive amenity values	Front garden of residence
Tree 17	-35.14724476	147.3398881	<i>Eucalyptus camaldulensis</i>	Endemic	Yes	Large	Mature	1	2		Significant Tree	Open Space Parkland
Tree 18	-35.14367911	147.3410259	<i>Eucalyptus melliodora</i>	Endemic	Yes	Large	Mature	2	2	Probably Yellow Box; not close enough to confirm	Significant Tree	Rear yard of residence
Tree 19	-35.14433198	147.3427917	<i>Eucalyptus cinerea</i>	NSW Native	Yes	Medium	Mature	1	2		Positive amenity values	Street Tree
Tree 20	-35.14447883	147.3427841	<i>Corymbia torelliana</i>	Aus Native	No	Medium	Mature	2	2		Positive amenity values	Front garden of residence
Tree 21	-35.1447477	147.3426492	<i>Eucalyptus blakelyi</i>	Endemic	Yes	Medium	Mature	1	1		Significant Tree	Street Tree
Tree 22	-35.14560471	147.3426362	<i>Ceratonia siliqua</i>	Exotic	No	Small	Mature	1	2		Positive amenity values	Front garden of vacant block
Tree 23	-35.14509419	147.3436433	<i>Brachychiton populneus</i>	Endemic	Yes	Medium	Mature	1	2	Twin stem	Positive amenity values	Front garden of residence
Tree 24	-35.14537213	147.3432084	<i>Corymbia torelliana</i>	Aus Native	No	Large	Mature	2	2	Triple stem	Positive amenity values	Rear yard of residence
Tree 25	-35.14549319	147.343441	<i>Corymbia maculata</i>	NSW Native	Yes	Large	Mature	2	1		Positive amenity values	Rear yard of residence
Tree 26	-35.14636895	147.3443231	<i>Corymbia citriodora</i>	Aus Native	No	Large	Mature	1	2		Significant Tree	Front garden of residence
Tree 27	-35.14589929	147.3435232	<i>Corymbia citriodora</i>	Aus Native	No	Large	Mature	1	2		Significant Tree	Rear yard of residence
Tree 28	-35.14796602	147.3414346	<i>Eucalyptus sideroxylon</i>	Endemic	Yes	Large	Mature	1	2		Significant Tree	Street Tree
Tree 29	-35.14781332	147.3410818	<i>Eucalyptus sideroxylon</i>	Endemic	Yes	Large	Mature	2	2	Mistletoe infections	Significant Tree	Street Tree
Tree 30	-35.14752318	147.3411293	<i>Corymbia citriodora</i>	Aus Native	No	Large	Mature	2	2		Positive amenity values	Rear yard of residence

Tree 31	-35.14431573	147.3465777	<i>Casuarina cunninghamiana</i>	Endemic	Yes	Medium	Mature	1	1		Positive amenity values	Open Space Parkland
Tree 32	-35.14651007	147.346396	<i>Eucalyptus melliodora</i>	Endemic	Yes	Large	Mature	1	2	Copse of 3 stems	Significant Tree	Open Space Parkland
Tree 33	-35.14468756	147.3444939	<i>Eucalyptus melliodora</i>	Endemic	Yes	Large	Mature	1	2	Very tall; Large-leaved Privet at base	Significant Tree	Open Space Parkland
Tree 34	-35.1444411	147.344877	<i>Casuarina cunninghamiana</i>	Endemic	Yes	Medium	Mature	1	2		Positive amenity values	Open Space Parkland
Tree 35	-35.14264855	147.3425439	<i>Eucalyptus cladocalyx</i>	Aus Native	No	Large	Mature	1	2	Copse of 11 stems	Sound tree suited to site	Open Space Parkland
Tree 36	-35.14220139	147.3421612	<i>Eucalyptus sideroxylon</i>	Endemic	Yes	Medium	Mature	2	2	Twin stemmed	Sound tree suited to site	Open Space Parkland
Tree 37	-35.14187757	147.3422035	<i>Eucalyptus melliodora</i>	Endemic	Yes	Large	Mature	1	2	Some failures of lower laterals	Sound tree suited to site	Open Space Parkland
Tree 38	-35.14153442	147.3421273	<i>Eucalyptus polyanthemos</i>	Endemic	Yes	Medium	Mature	1	2	At southern end of copse of Sheoaks & Eucalypts Tall specimen at east (central) edge of a copse including other Yellow Box, Mugga Ironbarks & Spotted Gum	Sound tree suited to site	Open Space Parkland
Tree 39	-35.14130662	147.3424148	<i>Eucalyptus melliodora</i>	Endemic	Yes	Large	Mature	1	1		Significant Tree	Open Space Parkland
Tree 40	-35.14124509	147.3439015	<i>Casuarina cunninghamiana</i>	Endemic	Yes	Medium	Mature	1	1	2 specimens	Sound tree suited to site	Open Space Parkland
Tree 41	-35.14155337	147.3443135	<i>Eucalyptus polyanthemos</i>	Endemic	Yes	Medium	Mature	1	2	2 specimens	Sound tree suited to site	Open Space Parkland
Tree 42	-35.14334925	147.3441833	<i>Eucalyptus sideroxylon</i>	Endemic	Yes	Large	Mature	1	1	In parking area of medium density residential development	Significant Tree	In parking area of medium density residential development
Tree 43	-35.14672129	147.3398442	<i>Corymbia maculata</i>	NSW Native	Yes	Large	Mature	1	1	Very tall	Positive amenity values	Rear yard of residence

Tree Structure Summary of stem branch unions - integrity, decay and extent of restrictions on root space or impacts to tree roots/stability	Tree Vigour
1 - Excellent	1 - Excellent
2 - Good	2 - Good
3 - Fair	3 - Fair
4 - Poor	4 - Poor
5 - Very Poor	5 - Very Poor

Note; Table adapted from Wade Ryan Contracting

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Appendix

B

Existing Tree Mapping



Oblique Aerial Photograph – Project Area North

T o l l a n d R e n e w a l P r o j e c t N o t a b l e T r e e I d e n t i f i c a t i o n



Oblique Aerial Photograph – Project Area South

T O L L A N D R E N E W A L P R O J E C T N O T A B L E T R E E I D E N T I F I C A T I O N

Appendix

C

Tolland Renewal Project

NOTABLE TREE PROFILES

Tree No. 1



Corymbia citriodora

Tree No. 2



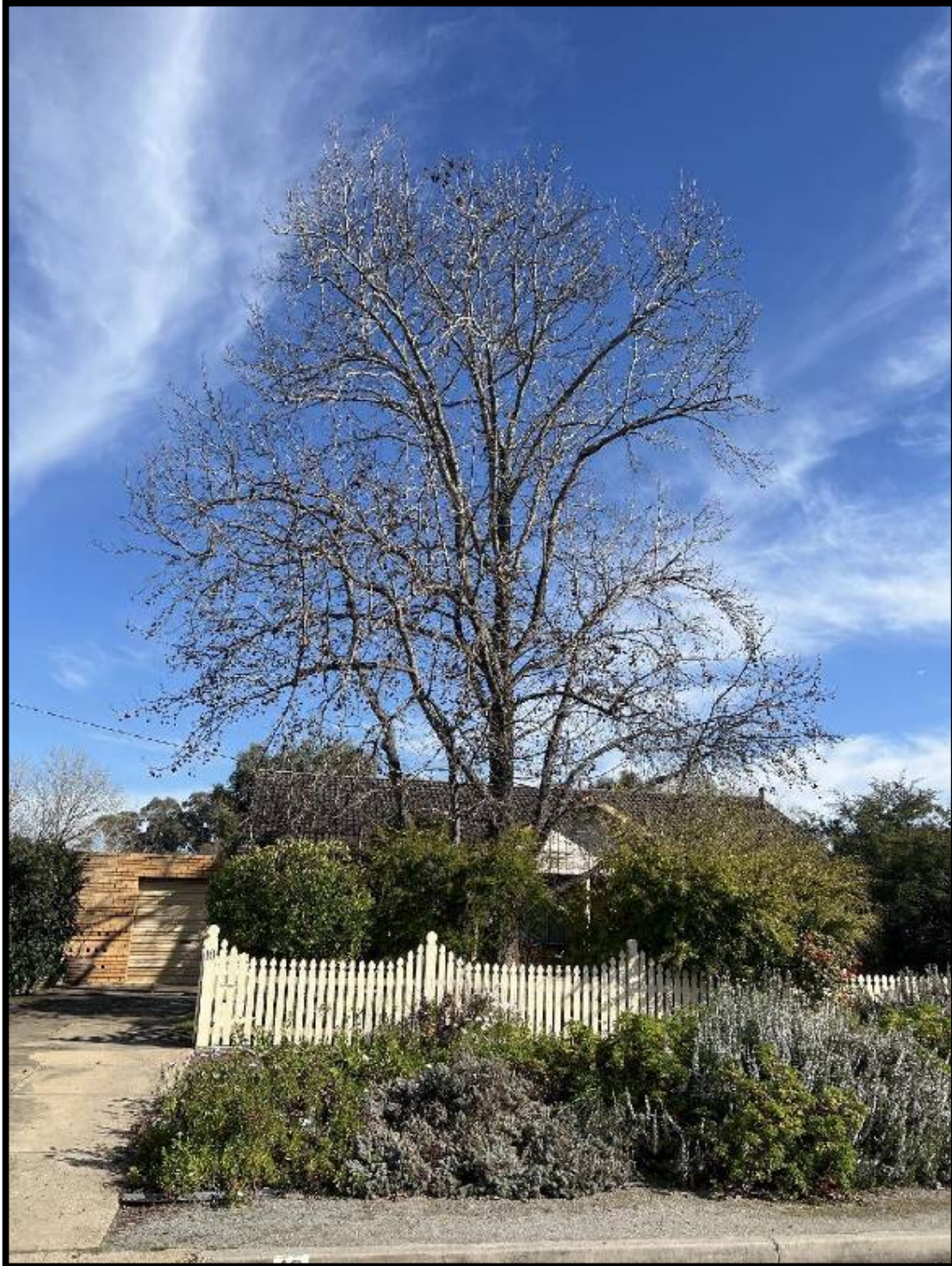
Jacaranda mimosifolia

Tree No. 3



Quercus palustris

Tree No. 4



Liquidambar styraciflua

4.1.5 – Tree No. 5



Phoenix canariensis



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Tree No. 6



Callistemon viminalis (two specimens)

Tree No. 7



Liquidambar styraciflua

Tree No. 8



Eucalyptus botryoides

Tree No. 9



Fraxinus oxycarpa

Tree No. 10



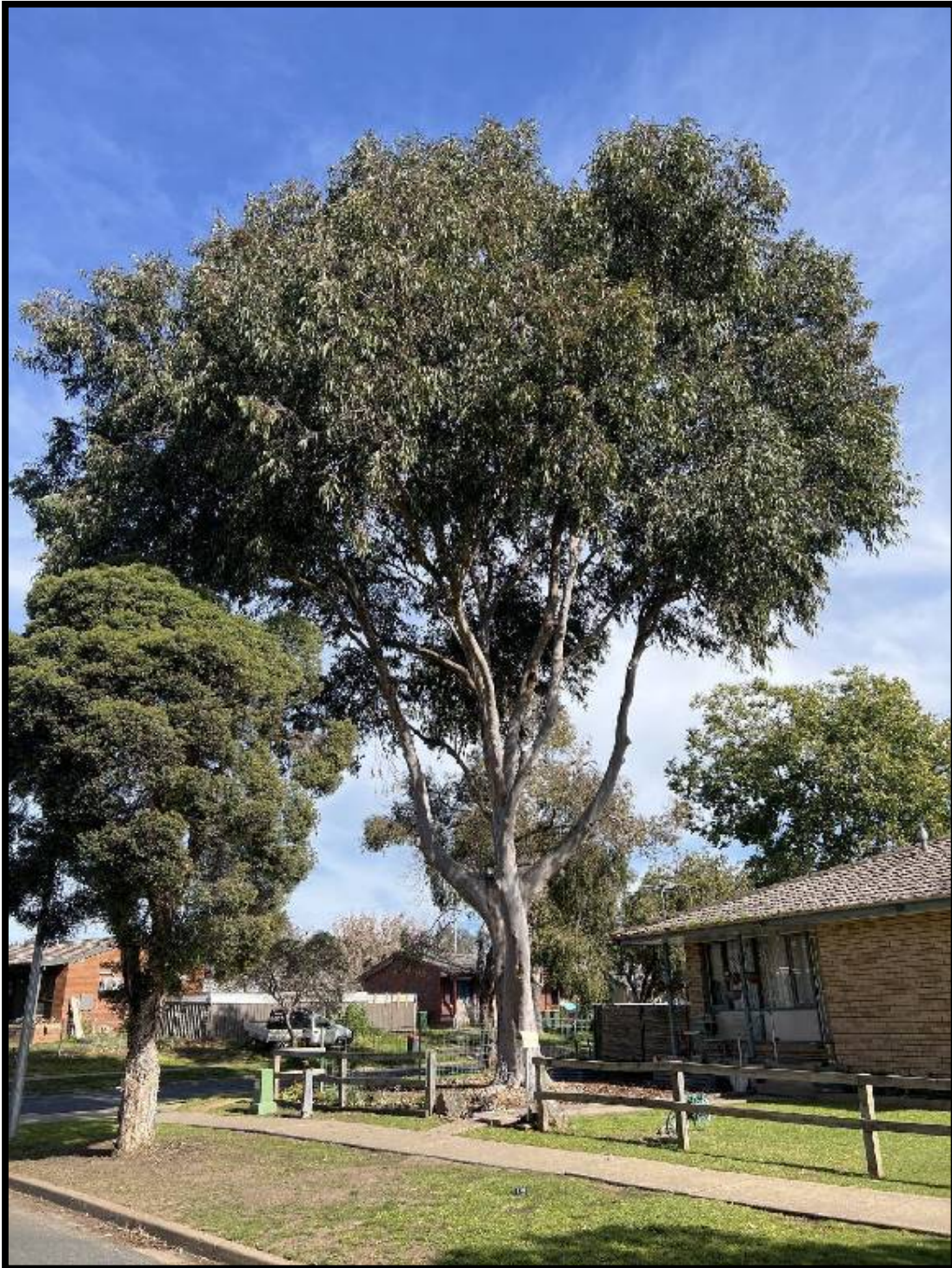
Angophora floribunda

Tree No. 11



Eucalyptus sideroxylon

Tree No. 12



Corymbia maculata

Tree No. 13



Corymbia torelliana

Tree No. 14



Corymbia torelliana

Tree No. 15



Corymbia citriodora

Tree No. 16



Eucalyptus cinerea

Tree No. 17



Eucalyptus camaldulensis

Tree No. 18



Eucalyptus melliodora

Tree No. 19



Eucalyptus cinerea

Tree No. 20



Corymbia torelliana

Tree No. 21



Eucalyptus blakelyi

Tree No. 22



Ceratonia siliqua

Tree No. 23



Brachychiton populneus

Tree No. 24



Corymbia torelliana

Tree No. 25



Corymbia maculata

Tree No. 26



Corymbia citriodora

Tree No. 27



Corymbia citriodora

Tree No. 28



Eucalyptus sideroxylon

Tree No. 29



Eucalyptus sideroxylon

Tree No. 30



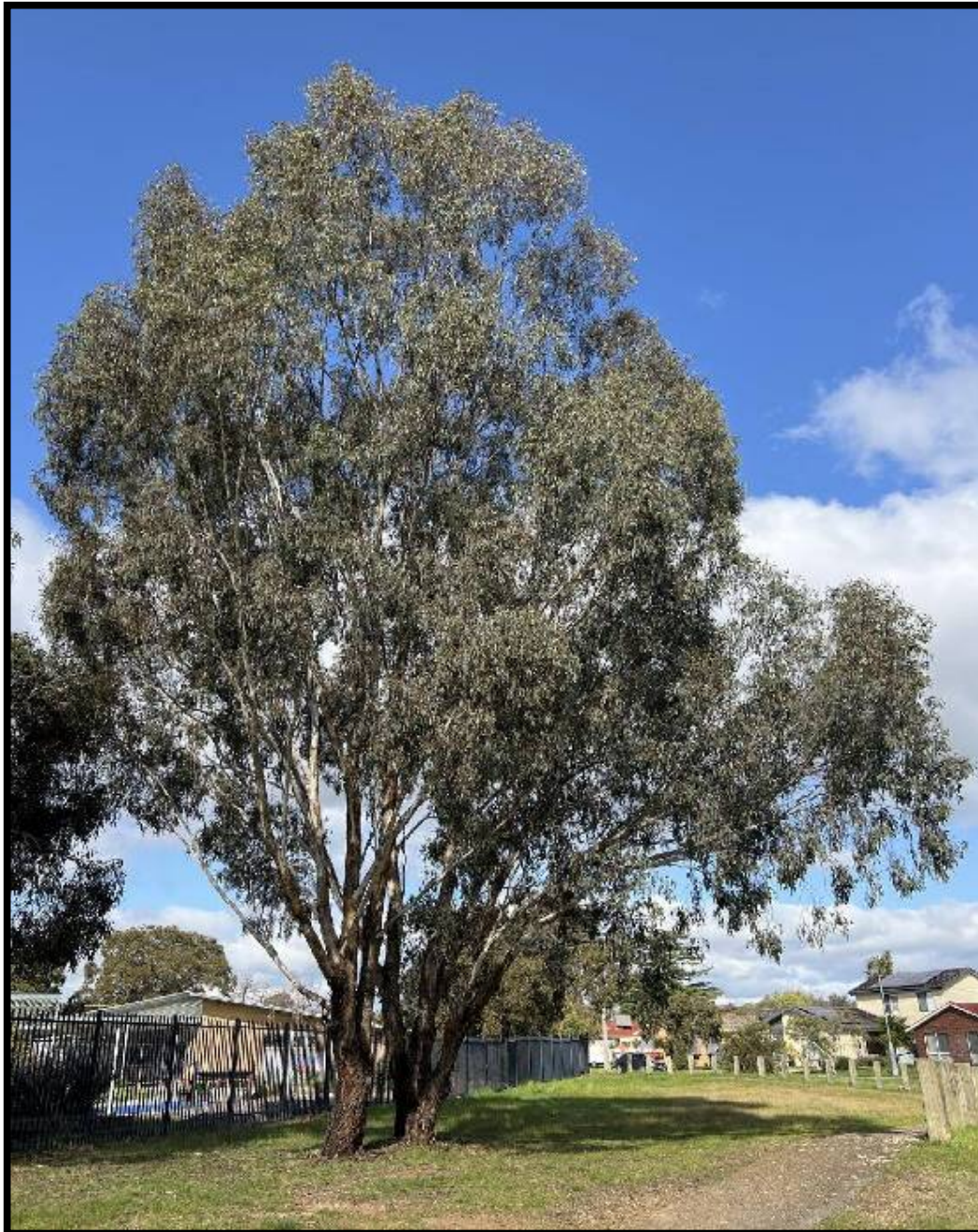
Corymbia citriodora

Tree No. 31



Casuarina cunninghamiana

Tree No. 32



Eucalyptus melliodora

Tree No. 33



Eucalyptus melliodora

Tree No. 34



Casuarina cunninghamiana

Tree No. 35



Eucalyptus cladocalyx

Tree No. 36



Eucalyptus sideroxylon

Tree No. 37



Eucalyptus melliodora

Tree No. 38



Eucalyptus polyanthemus

Tree No. 39



Eucalyptus melliodora

Tree No. 40



Casuarina cunninghamiana (two specimens)

Tree No. 41



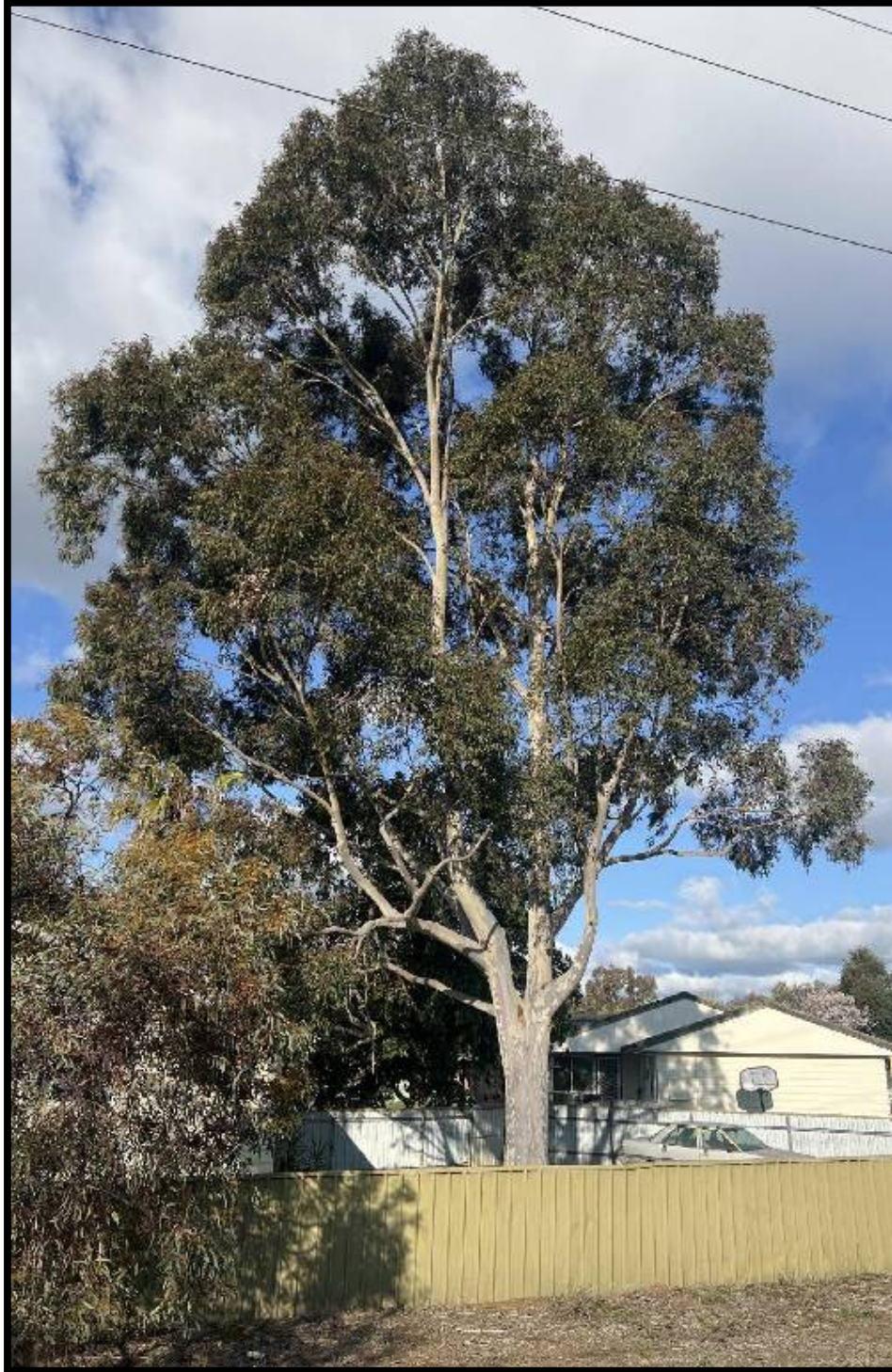
Eucalyptus polyanthemos (two specimens)

Tree No. 42



Eucalyptus sideroxylon

Tree No. 43



Corymbia maculata

Avenue 1 (Maher Street, from Awaba Avenue east to Nyrang Street)



Melaleuca linariifolia

Avenue 2 (Oliver Place)



Eucalyptus cinerea

Avenue 3 (Boyd Place)



Washingtonia filifera