

# **Hunter River Trees *Pty Ltd***

## ***Tree Management Professionals***

*Arboricultural Consultants and Tree Management Contractors*

PO Box 60

Lochinvar NSW 2321

PH: 02 4933 2555

02 4930 9080

Fax: 02 4933 0600

[hrtrees@bigpond.com](mailto:hrtrees@bigpond.com)

[www.hunterrivertrees.com.au](http://www.hunterrivertrees.com.au)

ABN 29 552 028 121

Prepared For:

**The Manager,  
Anambah Constructions,  
Re 106 New Highway,  
Rutherford, NSW, 2320.**

Prepared By:

**Steve Watson  
Hunter River Trees Pty Ltd  
Arboricultural Consultants**

**Ref No: 0018a/2017.**

**Date: 01<sup>st</sup> August 2017.**



## Disclaimer

This report was prepared for the exclusive use of the Manager, Anambah Constructions (the Client) and Hunter River Trees Pty Ltd.

The author accepts no responsibility for its use by persons other than the Client and Hunter River trees, Pty Ltd or their employees.

The Client acknowledges that this report, its contents and any advice, opinions, recommendations or conclusions that may arise or be expressed there in it, are based solely on information supplied by the Client and information gleaned by analyses, observations, measurement, inspection carried out or obtained by Hunter River Trees Pty Ltd during site survey or inspection.

**This report does not identify all structural defects of trees inspected and no responsibility is accepted for faults not identified or predicted.**

The client should rely on the contents of this report, only to the extent that some structural faults have been observed, but not all. No responsibility for damage to persons or property is accepted for damage by trees referred to in this report due to unforeseen or extreme environmental events.

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All photographs, figures and tables are the authors work unless otherwise referenced.

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## **2.0 Introduction**

Anambah Constructions contacted Hunter River Trees and requested an Initial Tree Survey be carried out at premises at 106 New England Highway, Rutherford. This report covers that survey and assessment.

### **2.1 Brief**

The purpose of this report is to survey the trees on site at 106 New England Highway, Rutherford (please refer to figure 1 for boundary of report area).

The Client requested that:

- 1-The trees on site be identified.
- 2 –The trees have their location plotted on a plan or image.
- 3 –That the trees be measured and assessed as per ISA guidelines for Initial Tree Survey.

### **2.2 Methodology**

Hunter River Trees Pty Ltd has performed an on-site inspection on 01<sup>st</sup> August 2017. Visual Tree Assessment methodology as described by Mattheck and Breloer (1994) was used on all trees.

Height dimensions were measured using a digital clinometer and Diameter at Breast Height (DBH) dimensions were measured using a diameter tape measure.

Canopy spread was measured by pacing out distances.

Age was estimated by experience of the species. Sustainability was based on current age, estimated life span and by estimation of the difference between the two.

Hollows and cavities were investigated via sounding hammer and probe. Further investigation via Resistograph was used when required and a report included in Appendices if so required.

Observations were made from ground level using binoculars and later using a digital camera.

### 3.0 Site

#### 3.1 Site Location

The site is located at 106 New England Highway, Rutherford, NSW, 2320 (Google Earth 2016).

Site Location: Please find below figure 1, Google Earth Image of 106 New England Highway, Rutherford, NSW, 2310.

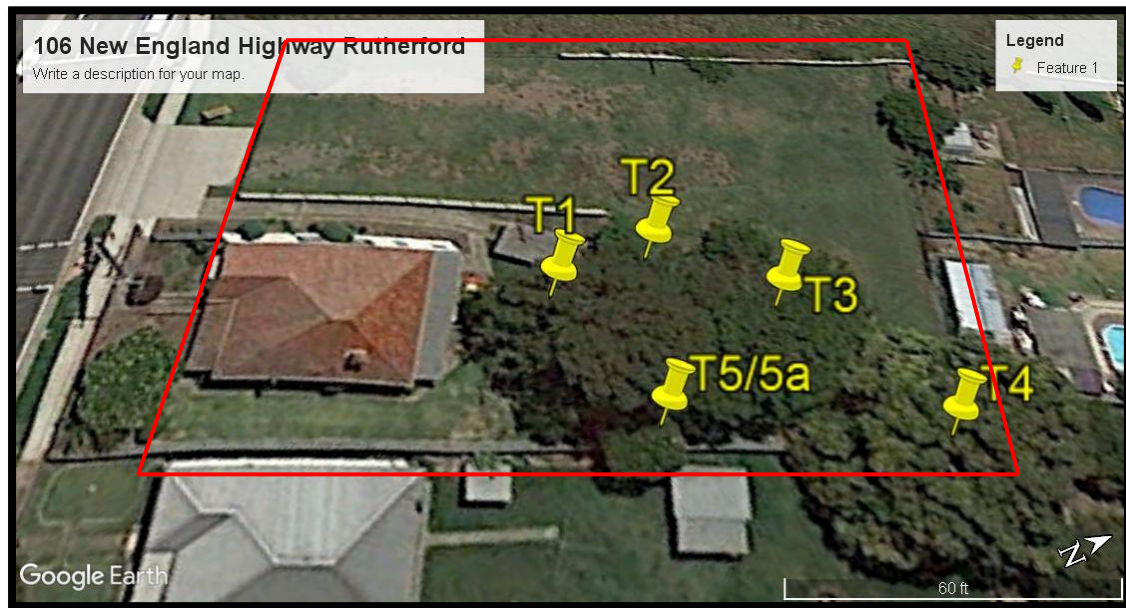


Figure 1 Google Earth image of site with area covered by report outlined in red and the trees mentioned in report numbered Tree 1 to 5/5a (Google Earth 2016).

## 4.0 Tree Survey Details

No	Botanic Name	Sustainability	AGE	Height (m)	DBH (mm)	Spread				Structure	Health	Comments
	Common Name					North	East	South	West			
1	<i>Corymbia maculata</i> Spotted gum	Greater than 40	Mature	23.2m	740mm	8	6	6	8	Average	Good	OK to be removed
2	<i>Castanospermum australe</i> Black Bean Tree	Greater than 40	Mature	8.5m	270mm	2	1	1	2	Average	Good	OK to be removed
3	<i>Ficus macrophylla</i> Morton Bay Fig	Greater than 40	Mature	15.6m	1650mm	9	6	7	7	Average	Fair	OK to be removed
4	<i>Ficus macrophylla</i> Morton Bay Fig	Greater than 40	Mature	14.2m	1030mm	8	8	11	6	Average	Fair	OK to be removed
5	<i>Ligustrum ovalifolium</i> Privott	15-40 years	Mature									Invasive weed species OK to be removed

**This is the End of the Report.**

## **5.0 Contact Details and Qualifications**

This report has been prepared by Steve Watson on behalf of Hunter River Trees Pty Ltd for Anambah Constructions re 106 New England Highway, Rutherford, NSW, 2320.

<b>Contact Details</b>	<b>Qualifications</b>
<b>Hunter River Trees <i>Pty Ltd.</i></b> <i>Tree Management Professionals</i>  PO Box 60, Lochinvar, 2321  Phone 02 49 332 555 Or 02 49 309 080 Fax 02 49 330 600  Email: <a href="mailto:hrtrees@bigpond.com">hrtrees@bigpond.com</a> Website: <a href="http://www.hunrerrivertrees.com.au">www.hunrerrivertrees.com.au</a>	<ol style="list-style-type: none"><li>1. Cert. 3 Horticulture (2000)</li><li>2. Cert. 3 Arboriculture (2002)</li><li>3. Cert. 5 Diploma Arboriculture (2014)</li></ol> Registered Consulting Arborist  Arboriculture Australia  Member Arboriculture Australia  Member International Society Arboriculture

*Steve Watson*

**Managing Director**

**Senior Consulting Arborist**



*PO Box 60 Lochinvar NSW 2321*

*Phone: 49332555*

*[www.hunrerrivertrees.com.au](http://www.hunrerrivertrees.com.au) | [hrtrees@bigpond.com](mailto:hrtrees@bigpond.com)*

## 6.0 References

Atkins, J, (2014) "*Assessing Hazardous Trees*" Hunter TAFE, 2014.

Atkins, J, (2012) "*Tree Reports*" Treeology Pty Ltd, 2013.

Brisbane Trees (2015), [brisbanetrees.com.au/cocos/palm](http://brisbanetrees.com.au/cocos/palm) viewed 07<sup>th</sup> August 2017.

Brooker, M I H and Kleinig, D A (2006) Field Guide to Eucalypts, Volume 1. Sydney, Australia.

Leonard, G (2007) "Eucalypts of the Sydney Region" Sydney Australia.

Macaboy, S, (2000) "What Tree Is That" Sydney, Australia.

Matheck, K and Breloer, H (1994) "*The Body Language of Trees – A Handbook for failure analysis*" TSO London.

Methany, M, and Clark, J (1994) "*Evaluation of Hazard Trees in Urban Areas*" International Society Of Arboriculture, Illinois, USA.

Standards Australia (2007) AS4373 "*Pruning Amenity Trees*" Standards Australia Sydney NSW

NSW Government (2010) Tree Facts online, [WWW.INDUSTRY.NSW.GOV.AU](http://WWW.INDUSTRY.NSW.GOV.AU) viewed Monday the 07<sup>th</sup> August 2017.

US State Department Geographer, (2016) Google Earth online, <http://www.googleearth.com> viewed Monday the 07<sup>th</sup> August 2017.



## 7.0 Glossary of Arboricultural Terms

<b>absorbing roots</b>	fine, fibrous roots that take up water and mineral; most absorbing roots are within the top 30 cm of soil
<b>adventitious</b>	shoots and roots that develop other than at their normal positions of origin
<b>aeration</b>	provision of air to the soil to alleviate soil compaction and improve its structure
<b>age class</b>	young – less than 20% of life expectancy mature – 20% to 80% life expectancy over-mature – greater than 80% of life expectancy
<b>allelopathic effect</b>	effect caused by chemical substances produced by some plants that inhibit the growth and development of other nearby plants
<b>bifurcation</b>	natural division of a branch or stem into two or more stems or parts
<b>bracket</b>	fruiting or spore producing body of wood decay fungi, forming on the external surface of the trunk or branch
<b>cambium</b>	thin layer of cells that produces phloem on the outside and xylem on the inside
<b>canopy</b>	converging crowns of two or more trees
<b>chlorotic</b>	leaves turning pale green, yellow or white from lack of chlorophyll, using due to nitrogen deficiency
<b>cleaning / clean out</b>	in pruning – the selective removal of dead dying, diseased, damaged, broken and defective branches
<b>co-dominant</b>	similar to size and importance, usually associated with trunks or scaffold branches, arising from a common junction and lacking a normal branch union
<b>compaction (soil)</b>	compression of the soil, often as a result for vehicle or heavy equipment, that breaks down soil aggregates and reduces soil volume and total pore space, especially the macropores
<b>condition</b>	overall state of the tree; refers to health, vigour and structure rated as excellent, good, fair, poor or dead
<b>crown</b>	the part of the tree comprising the total amount of foliage
<b>DBH</b>	Diameter at Breast height; diameter of the trunk measured at 1.4 metres above ground level

<b>decay</b>	(n.) an area of wood that is undergoing decomposition; (v.) decomposition of organic tissues by fungi or bacteria
<b>decline</b>	gradually diminishing health or condition of a tree
<b>decurent</b>	the form of a tree with no central leader but with structural scaffold branches forming the basis of a spreading crown, compare with excurrent
<b>defect (structural)</b>	internal or external points of weakness that reduce the stability of the tree
<b>desiccation</b>	drying out, or dehydration, of part of a tree – usually roots or leaves
<b>epicormic</b>	arising from a latent or adventitious bud
<b>evapotranspiration</b>	the process through which plants release water to the surrounding air, dissipation ambient heat
<b>excurrent</b>	the form of a tree with a central leader and symmetric, vertical crown, compare to decurent
<b>failure</b>	structural collapse in part or full of part of a tree – roots, trunk or branches – often leading to the whole tree or part of the tree falling
<b>fastigate</b>	having clusters of vertical branches, appearing as a single columnar form
<b>form</b>	the shape and symmetry of a tree
<b>hazard</b>	a condition that predisposes a tree to failure
<b>health</b>	freedom from pests, diseases, ailments, stress – measured as excellent, good, fair, poor or dead
<b>heartwood</b>	inner xylem, consisting of dead cells, does not transport water and minerals
<b>included bark</b>	bark that becomes imbedded in a union between branches, a branch and stem, or co-dominant stems
<b>leader</b>	dominant upright stem, particularly on excurrent trees
<b>live crow ratio</b>	ratio of the height of the crown containing live foliage to the height of the tree
<b>lopping</b>	cutting of branches or stems between branch unions (this practice is generally unacceptable)
<b>phloem</b>	conductive tissue immediately beneath the bark; transports food materials throughout the tree

<b>phototropic</b>	the tendency of a tree to grown towards light
<b>reactive soils</b>	soils with high clay content that expand and shrink due to changes in moisture levels
<b>risk</b>	a combination of the potential for tree failure and the likely consequences if failure does occur
<b>root crown</b>	area where the main root joins the plant stem, usually at or near ground level
<b>sapwood</b>	outer part of the xylem that transports water and minerals
<b>Scaffold branches</b>	permanent or structural branches; arising from the trunk
<b>Structural Root Zone (SRZ)</b>	the area around the tree, usually within 3 to 4 metres from the trunk, in which the structural roots are situated, and which must be protected during construction
<b>Structure</b>	construction and arrangement of parts (roots, trunk, branches) – rated as excellent, good, fair or poor
<b>Target</b>	person, object or structure that could be injured or damaged in the event of tree or branch failure
<b>Topping</b>	cutting the main trunk to reduce the height of a tree (this is an unacceptable practice)
<b>Tree Protection Zone (TPZ)</b>	an area around a tree that is protected by a physical barrier from negative impacts, usually from construction activities
<b>Vigour</b>	capacity to grow, and to resist disease, ailments, pests, stress – categorised as normal, high low and dormant
<b>Xylem</b>	the wood – inside of the cambium layer; transports water and dissolved mineral nutrients from the roots to other parts of the tree; provides strength in trunk and branches