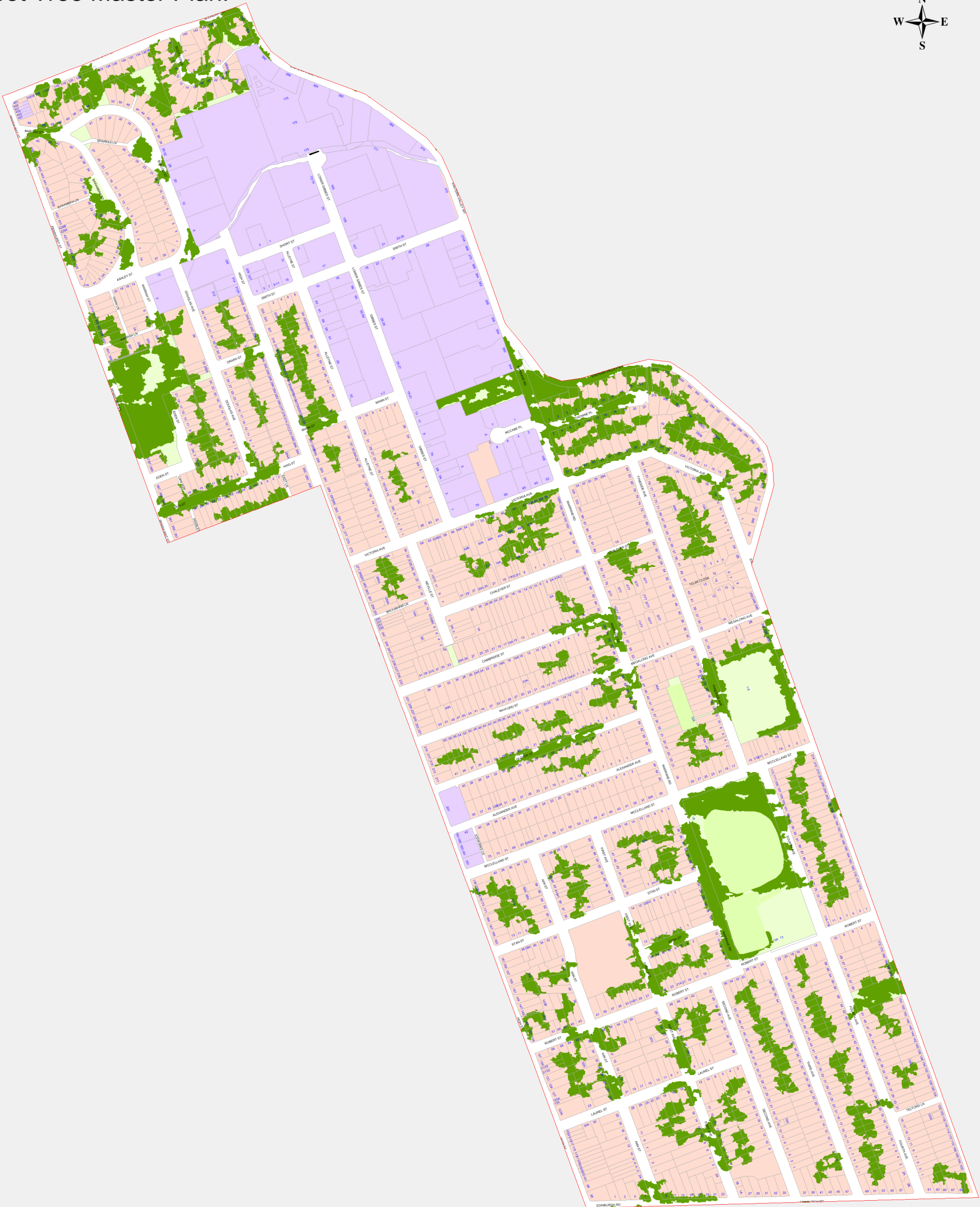


# Willoughby City Councils Street Tree Master Plan.

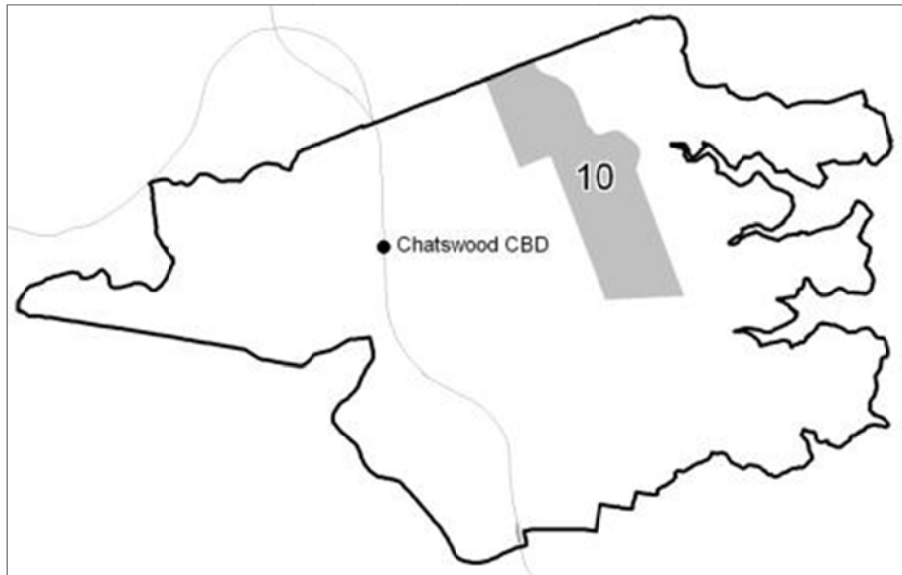
## Precinct 10

### North Central



- Legend
- Grassed areas
  - Industrial and Commerial areas
  - Low density residential
  - Medium density residential
  - Sports ground
  - Vegetation
  - Water

## 10. North-central light industrial and residential (incl. Conservation Areas)



### Key landscape features

#### Geology and soils:

Central ridge and eastern slopes – Wianamatta Group shale (approx. 45% of precinct); shallow to moderately deep loams, silty-loams and clay-loam soils of low to moderate fertility;

Northern and north-eastern steep slopes and valleys – Hawkesbury sandstone (approx. 35% of precinct) – typically fine to coarse grained quartz sandstone with inter-bedded shale lenses; soils are generally shallow, apedal and porous sandy to sandy loams with very low fertility;

South-eastern slopes – Mittagong Formation (approx. 20% of precinct) with alternating bands of fine to medium grained quartz sandstone and inter-bedded shale lenses; sandy loams overlying hard-setting sandy clay loam

#### Topography, slope and aspect:

Gently undulating to moderately inclined slopes along central ridge with no rock outcrops; grading to localised steep slopes with some sandstone outcropping and benches along northern and eastern slopes; gently undulating crests and ridges with no rock outcropping on south-eastern slopes; aspect varies – mainly north-east to south-east.

#### Cultural landscape:

Predominantly low density residential (incl. Willoughby Park Heritage Conservation Area), also light industrial (approx. 20% of precinct) in north-eastern corner; Boundary Street (northern boundary), Eastern Valley Way (eastern boundary), Edinburgh Road (southern boundary), High Street/ Penshurst Street (western boundary).



PHOTO 9: Mann Street – single species avenue of Outeniqua Yellowwood (*Afrocarpus falcatus*)

#### **Presence of remnant native vegetation:**

This precinct would have originally supported a range of vegetation communities including Blue Gum High Forest (BGHF), Sydney Turpentine-Ironbark Forest (STIF), Sydney Sandstone Gully Forest and Sandstone Ridgeline Woodland. Almost all native vegetation has been cleared. No remnant native vegetation occurs on any street verges in this precinct.

#### **Streetscape type/character:**

Dominant cultural plantations/ mixed exotic and native tree species (evergreen and deciduous); some fine avenues in wide verges (e.g. Mann Street – Outeniqua Yellowwood and Cambridge Street – Broad-leaved Paperbark); typically mixed generic native species within each street (e.g. *Eucalyptus*, *Corymbia*, *Melaleuca*, *Banksia*, *Callistemon*, *Tristanopsis* spp.). For example, Tyneside Avenue has 26 tree species including 13 generic native species and 13 exotic species (i.e. 8 deciduous/ 5 evergreen spp.); total of 88 planted trees.

#### **Heritage Conservation Area:**

1. Willoughby Park Heritage Conservation Area: C12 (WDCP 2012 Part H: Heritage Item H3.13).

#### **Historic significance:**

HCA-C12 Key period of significance: 1907-1930 (WDCP, 2012, H3-47)

#### **Significant Inter-war period (single species and mixed) plantations:**

Edinburgh Road (western portion)

Glover Street

Penshurst Street

Willoughby Park (boundary plantations to Fourth Avenue, McLelland Street and Warrane Road)

### Age structure of cultural street tree plantations:

Conservation Area: Inter-war period plantations (up to 80-90 years+)

Dominant planting: varies; generic native planting (up to 30-40 years+)

PRECINCT 10: NORTH-CENTRAL INDUSTRIAL & RESIDENTIAL/ CONSERVATION Existing typical or dominant tree species	
Location	Tree Species (cultivated)
High Street	<i>Eucalyptus/ Corymbia</i> spp. (mixed generic Eucalypts) <i>Callistemon viminalis</i> (Weeping Bottlebrush) <i>Auranticarpa rhombifolia</i> (Hollywood/ Diamond-leaf Pittosporum)
Alleyne Street/ Smith Street	<i>Callistemon viminalis</i> (Weeping Bottlebrush) <i>Triadica sebifera</i> syn. <i>Sapium sebiferum</i> (Chinese Tallow Tree) <i>Fraxinus angustifolia</i> subsp. <i>oxycarpa</i> 'Raywood' (Claret Ash)
Mann Street	<i>Afrocarpus falcatus</i> (Outeniqua Yellowwood)
Chaley Street/ Cambridge Street	<i>Tristanopsis laurina</i> (Water Gum) <i>Callistemon viminalis</i> (Weeping Bottlebrush) <i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)
Warrane Street/ Tyneside Avenue	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark) <i>Eucalyptus sideroxylon</i> (Mugga Ironbark) <i>Lagerstroemia indica</i> var. (Crepe Myrtle)
Glover Street/ McClelland Street	<i>Lophostemon confertus</i> (Brush Box) <i>Afrocarpus falcatus</i> (Outeniqua Yellowwood) <i>Tristanopsis laurina</i> (Water Gum)
Third Avenue/ Fourth Avenue	<i>Eucalyptus</i> spp. (mixed generic Eucalypts) <i>Callistemon viminalis</i> (Weeping Bottlebrush) <i>Tristanopsis laurina</i> (Water Gum)

### Key precinct objectives

- Protect and maintain the integrity and intactness of Inter-war period avenues and row plantations;
- Implement a program to phase-out unsuitable and/ or poorly performing street trees including removal of disparate elements (i.e. varying forms, habit, structure, texture, etc.) and variety of tree species in many streets;
- Promote consistency in tree species selection ensuring continuity, unity and cohesiveness in the palettes for each street and across the precinct;



- Avoid infill planting strategies which add further layers of inconsistent, disjunctive and/ or mixed generic native and exotic tree species of varying scale, form and texture;
- Within the light industrial area, provide appropriate massing of street trees to reduce the bulk and scale of industrial buildings and associated infrastructure;
- Establish a consistent palette of dense, evergreen broadleaf species rather than open or sparse canopy trees of varying forms and shapes in the industrial area;
- Prioritise key connector roads including Eastern Valley Way and Penshurst Street implementing a planting strategy using single or two (mixed) species within the streetscape (i.e. one species under overhead powerlines/ shop awnings and alternative species with no service restrictions);
- Promote strategies to supplement and enhance ecological connectivity within the streetscapes adjoining Scott's Creek corridor (see Precinct 9);
- Implement a strategy using provenance-sourced material consistent with Sydney Turpentine-Ironbark Forest and Sydney Sandstone Gully Forest (i.e. avoid use of generic native species in this context and progressively phase-out generic native planting in these streets).

**PRECINCT 10: NORTH-CENTRAL INDUSTRIAL & RESIDENTIAL/ CONSERVATION**  
**Proposed street tree species**

Tree Species	Common Name	evergreen	deciduous	habit/form¹	verge width²	power-lines³
<i>Acmena smithii</i>	Lilly Pilly	E	-	cr	N	N
<i>Acmena smithii</i> var. minor	Lilly Pilly (incl. cv)**	E	-	cr	N	Y
<i>Afrocarpus falcatus</i>	Outeniqua Yellowwood	E	-	cs	W	N
<i>Alectryon subcinereus</i> (SGF1)*	Native Quince	E	-	cr	N	Y
<i>Angophora costata</i> (STIF/SGF1)*	Smooth-barked Apple	E	-	os	M	N
<i>Backhousia citriodora</i>	Lemon-scented Myrtle	E	-	cr	M	N
<i>Backhousia myrtifolia</i> (SGF1)*	Grey Myrtle	E	-	cr	N	Y
<i>Betula nigra</i>	Black Birch	-	D	ou	M	N
<i>Cupaniopsis anacardioides</i>	Tuckeroo	E	-	cr	N	Y
<i>Corymbia gummifera</i> (SGF1)*	Red Bloodwood	E	-	os	M	N
<i>Elaeocarpus eumundi</i>	Eumundi Quandong	E	-	cu	M	N
<i>Eucalyptus haemastoma</i>	Scribbly Gum	E	-	os	W	N
<i>Eucalyptus piperita</i> (SGF1)*	Sydney Peppermint	E	-	os	W	N
<i>Eucalyptus punctata</i> (SGF1)*	Grey Gum	E	-	os	W	N
<i>Eucalyptus racemosa</i>	Scribbly Gum	E	-	os	M	N
<i>Eucalyptus resinifera</i> (STIF)*	Narrow-leaved Ironbark	E	-	os	W	N
<i>Fraxinus</i> spp.	Ash	-	D		M	Y
<i>Glochidion ferdinandi</i> (SGF1)*	Cheese Tree	E	-	cs	M	Y
<i>Lagerstroemia indica</i> x <i>L. fauriei</i> var.	Crepe Myrtle cv.***	-	D	cu	M	Y
<i>Lophostemon confertus</i>	Brush Box	E	-	cr	W	N
<i>Metrosideros</i> spp.	NZ Christmas Bush	E	-	us	M	Y
<i>Pistacia chinensis</i>	Chinese Pistachio	-	D	cr	M	N
<i>Pyrus</i> spp	Ornamental Pear	-	D	cn	N	N
<i>Syncarpia glomulifera</i> (STIF/SGF1)*	Turpentine	E	-	cs	W	N
<i>Syzygium luehmannii</i>	Cherry Satinash	E	-	cu	N	Y

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<i>Syzygium paniculatum</i>	Magenta Lilly Pilly	E	-	cr	M	N
<i>Tristaniaopsis laurina</i>	Water Gum	E	-	cr	M	Y
<i>Ulmus spp.</i>	Chinese Elm	-	D	os	W	N
<i>Waterhousea floribunda</i>	Weeping Lilly Pilly	E	-	cs	M	N
<i>Xanthostemon chrysanthus</i>	Golden Penda	E	-	cr	N	Y

NOTES: Species are shown in alphabetical order and do not denote dominance or ranking.

\*STIF/SGF1 LOCAL NATIVE SPECIES recommended for Scotts Creek corridor and adjoining streetscapes.

STIF = Sydney Turpentine-Ironbark Forest (endangered EEC);

SGF1 = Sydney Sandstone Gully Forest (*Eucalyptus piperita*/ *Angophora costata*);

\*\* *Acmena smithii* var. *minor* including extremely psyllid-resistant cultivars “Red Head” (burgundy red new foliage) and “Sublime” (lush green new foliage).

#### <sup>1</sup>HABIT/ FORM OF TREE

c = compact/dense foliage; o = open crown/ canopy;

upright = u; r = rounded; s = spreading; n = narrow/columnar or pyramidal.

#### <sup>2</sup>MINIMUM VERGE WIDTH (incl. footpath):

N = narrow (<2.5 metres)

M = medium (2.5-4.0 metres)

W = wide (>4.0 metres)

#### <sup>3</sup>PLANTING UNDER POWER-LINES (incl. ABC):

Item denotes suitability for planting under overhead power-lines or aerial bundled cabling:

N = NO; Y = YES



Lilly Pilly  
*Acmena smithii*



Smooth-barked Apple  
*Angophora costata*



Outeniqua Yellowwood  
*Afrocarpus falcatus*



Lemon-scented Myrtle  
*Backhousia citriodora*



Tree Waratah  
*Alloxylon flammeum*



Grey Myrtle (immature)  
*Backhousia myrtifolia*





Tuckeroo  
*Cupaniopsis anacardioides*



Red Bloodwood – bark detail  
*Corymbia gummifera*



Eumundi Quandong  
*Elaeocarpus eumundi*



Heart-leaf Stringybark – leaf detail  
*Eucalyptus camfieldii*



Broad-leaved Scribbly Gum  
*Eucalyptus haemastoma*



Sydney Peppermint  
*Eucalyptus piperita*



Narrow-leaved Scribbly Gum  
*Eucalyptus racemosa*



Sydney Blue Gum  
*Eucalyptus saligna*



Australian Teak  
*Flindersia australis*



Bumpy Ash  
*Flindersia schottiana*



Cheese Tree  
*Glochidion ferdinandi*



Gordonia  
*Gordonia axillaris*





Purple-leaf Hibiscus  
*Hibiscus tiliaceus* var. *rubra*



Jacaranda  
*Jacaranda mimosifolia*



Crepe Myrtle cv. Yuma  
*Lagerstroemia indica* x *L. fauriei*



Southern Magnolia cv. Exmouth  
*Magnolia grandiflora* 'Exmouth'



Ornamental Pear – autumn foliage  
*Pyrus calleryana* 'Chanticleer'



Turpentine  
*Syncarpia glomulifera*

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Cherry Satinash  
*Syzygium luehmannii*



Weeping Lilly Pilly  
*Waterhousea floribunda*



Water Gum cv. Luscious  
*Tristaniaopsis laurina* 'Luscious'



Golden Penda  
*Xanthostemon chrysanthus*