








Willoughby City Councils Street Tree Master Plan.

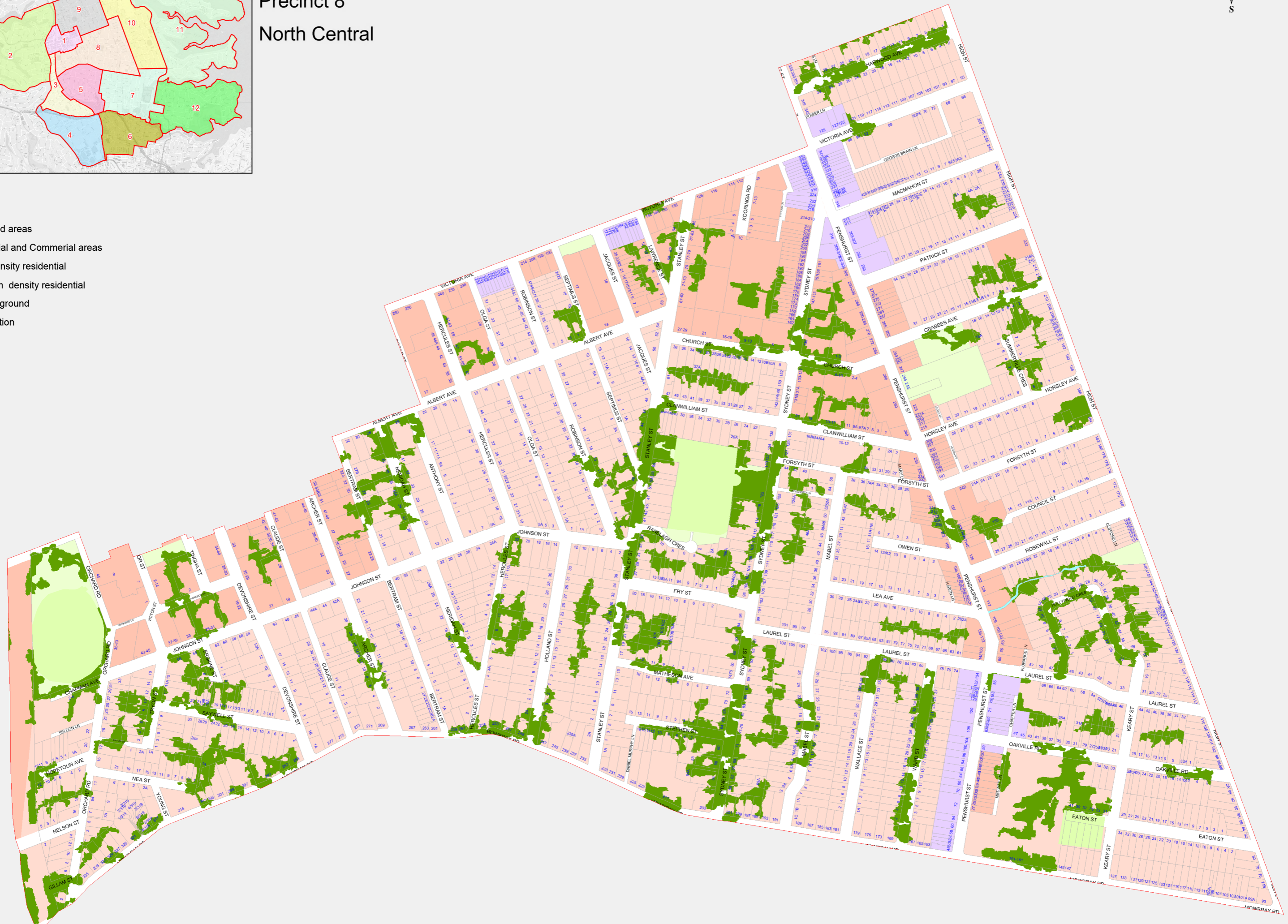
Precinct 8

North Central

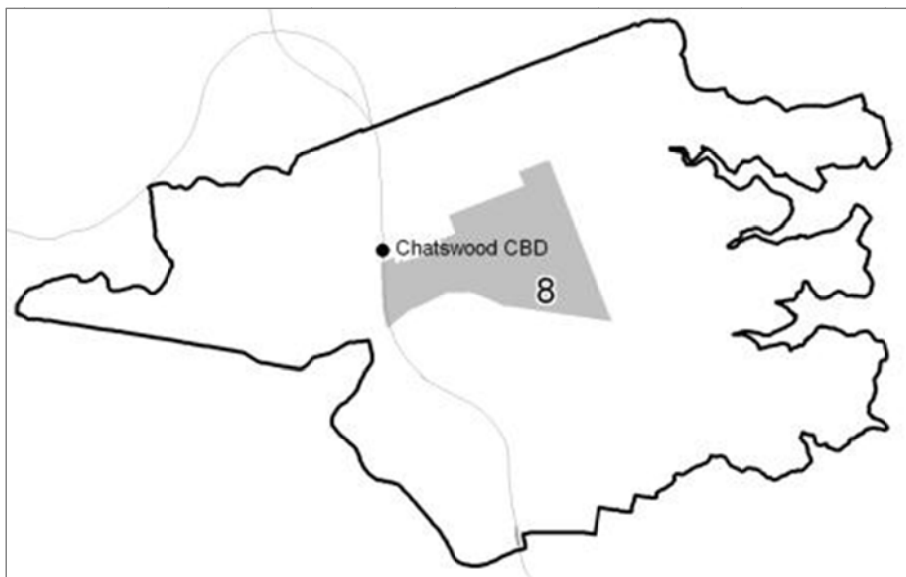


Legend

- | | |
|--|---------------------------------|
|  | Grassed areas |
|  | Industrial and Commercial areas |
|  | Low density residential |
|  | Medium density residential |
|  | Sports ground |
|  | Vegetation |
|  | Water |



8. North-central mixed residential (incl. Conservation Areas)



Key landscape features

Geology and soils:

Wianamatta Group shales – shallow to moderately deep loams, silty-loams and clay-loam soils of low to moderate fertility.

Topography, slope and aspect:

Gently undulating to moderately inclined slopes; no rock outcrops; aspect varies.

Cultural landscape:

Predominantly low density residential (incl. four Conservation Areas); also medium density residential/ commercial along northern and eastern road corridors (Victoria Avenue and Penshurst Street) and high density residential/ mixed use (adjacent to Chatswood CBD); Albert Avenue/ Victoria Avenue/ Harwood Avenue (northern boundary), High Street (eastern boundary), Mowbray Road (southern boundary) and rail corridor (western boundary).

Presence of remnant native vegetation:

The Blue Gum High Forest (BGHF) community of this precinct was largely cleared during the nineteenth century (i.e. timber-getting was followed by small farms, orchards, market gardens and housing).

A few forest (regrowth) remnants including old growth Turpentine (*Syncarpia glomulifera*) have been retained in the street verges and adjoining properties in the following locations:



- entry/ verge to St Stephens Anglican Church (adj. to 211 Mowbray Road);
- corner of Stanley and Jacques Streets;
- corner of Stanley and Johnson Streets;
- corner of Holland and Johnson Streets.

PHOTO 6: Mowbray Road – remnant old growth Turpentine (*Syncarpia glomulifera*) group near St. Stephens Anglican Church

Streetscape type/character:

Dominant cultural plantations including single or mixed species (native and exotic), evergreen or deciduous avenues; significant Inter-war period plantations (see below). This precinct has a number of fine single and mixed species avenues including Sydney Street, Victoria Avenue, Oakville Road and Neridah Street. Recent

plantations include Forsyth Street, Laurel Street and Eaton Street.

Heritage Conservation Areas:

1. South Chatswood Heritage Conservation Area: C11 (WDCP 2012 Part H: Heritage Item H3.12);
2. Harwood Avenue Heritage Conservation Area: C5 (WDCP 2012 Part H: Heritage Item H3.6);
3. Hollywood Crescent Heritage Conservation Area: C6 (WDCP 2012 Part H: Heritage Item H3.7); and
4. Horsley Avenue Heritage Conservation Area: C7 (WDCP 2012 Part H: Heritage Item H3.8).

Historic significance:

Earliest land grants in the area were in 1825 and 1840; timber getting/ clearing followed by development of small farms, orchards, flower growing, vegetables and Chinese market gardens; proposed construction of the railway generated a land subdivision boom during the 1880s. This precinct conserves a rich variety of Victorian, Federation and California bungalow styles including a number of large estates with late-Victorian villas and Federation two-storey mansions.

Harwood Avenue was developed in the 1920s in the California bungalow or transitional style of the Inter-war period. This Conservation Area is significant in terms of its integrity and consistency in scale, style, detailing, spacing, setbacks and subdivision pattern. The mature, single species, avenue of Brush Box (dating from this period) is an integral component providing uniformity and cohesiveness to

the streetscape. The avenue is highly significant at the local level. THE WDCP states that any street tree renewal should be with brush box (WDCP, 2012, H3-22).

Hollywood Crescent, an unusual “U”-shaped subdivision, also retains an original tree-lined avenue and consistent bungalow style of the Inter-war period. The mature, single species, avenue of Brush Box “*creates a picturesque sequence of vistas along the Crescent*” (WDCP, 2012, H3-25) and is highly significant at the local level. Any renewal or replacement planting should be with Brush Box and unsympathetic infill planting should be phased out (WDCP, 2012, H3-25). Horsley Avenue and Summerville Crescent similarly conserve a consistent and coherent character dating from the Inter-war period however the streetscape plantations (including Crepe Myrtle) are later introductions.



PHOTO 7: Harwood Avenue –
Brush Box (*Lophostemon confertus*)
significant single species heritage
avenue in Conservation Area

HCA-C11	Key period of significance: 1880-1930 (WDCP, 2012, H3-43);
HCA-C5	Key period of significance: 1921-1930 (WDCP, 2012, H3-22);
HCA-C6	Key period of significance: 1926-1935 (WDCP, 2012, H3-25);
HCA-C7	Key period of significance: 1926-1940 (WDCP, 2012, H3-28).

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

Orchard Road/ Chapman Avenue (Chatswood Park – boundary plantation)

Harwood Avenue

Hollywood Crescent

Ward Street

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+)

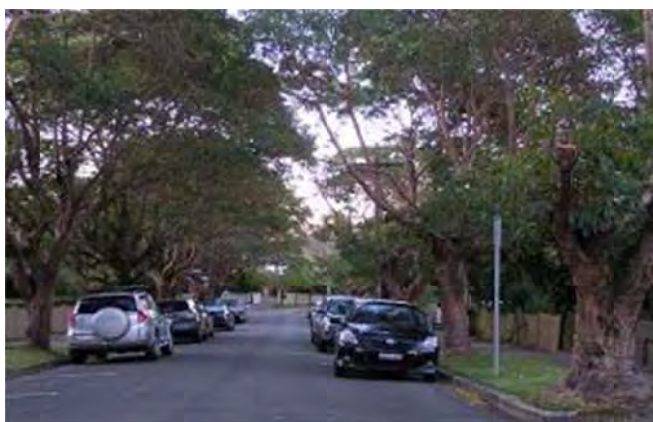


PHOTO 8: Hollywood Crescent –
Brush Box (*Lophostemon confertus*)
A significant single species heritage
avenue in Conservation Area

PRECINCT 8: NORTH-CENTRAL MIXED RESIDENTIAL/ CONSERVATION

Existing typical or dominant tree species

Location	Tree Species (cultivated)
Victoria Avenue	<i>Platanus x acerifolia</i> (London Plane) <i>Ulmus</i> spp. (mixed Elms)
Penshurst Street	<i>Ulmus glabra</i> 'Lutescens' (Golden Elm) <i>Lagerstroemia indica</i> var. (Crepe Myrtle) <i>Fraxinus angustifolia</i> subsp. <i>oxycarpa</i> 'Raywood' (Claret Ash)
Harwood Avenue/ Hollywood Crescent/ Horsley Avenue	<i>Lophostemon confertus</i> (Brush Box) <i>Lagerstroemia indica</i> var. (Crepe Myrtle)
Oakville Road/ Laurel Street	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark) <i>Eucalyptus sideroxylon</i> (Mugga Ironbark) <i>Lagerstroemia indica</i> var. (Crepe Myrtle)
High Street	<i>Eucalyptus</i> spp. (mixed Eucalypts) <i>Callistemon viminalis</i> (Weeping Bottlebrush) <i>Auranticarpa rhombifolia</i> (Hollywood/ Diamond-leaf Pittosporum)
Sydney Street/ Stanley Street	<i>Lophostemon confertus</i> (Brush Box) <i>Ficus microcarpa</i> var. <i>hillii</i> (Hill's Weeping Fig) <i>Tristanopsis laurina</i> (Water Gum)
Clanwilliam Street/ Church Street	<i>Callistemon</i> spp. (Bottlebrush) <i>Jacaranda mimosifolia</i> (Jacaranda) <i>Eucalyptus haemastoma</i> (Scribbly Gum)
Neridah Street/ Hercules Street	<i>Pyrus calleryana</i> 'Chanticleer' (Ornamental Pear) <i>Lagerstroemia indica</i> var. (Crepe Myrtle) <i>Lophostemon confertus</i> (Brush Box)
Saywell Street/ Tryon Street	<i>Fraxinus angustifolia</i> subsp. <i>oxycarpa</i> 'Raywood' (Claret Ash) <i>Eucalyptus sideroxylon</i> (Mugga Ironbark) <i>Nerium oleander</i> (Oleander)

Key precinct objectives

- Protect the historic character, scale and integrity of Victorian, Federation and Inter-war period streetscapes particularly within Heritage Conservation Areas (incl. removal of inappropriate infill and replacement species);
- Protect and maintain the integrity and intactness of mature single species avenues (incl. Inter-war period avenues of Brush Box);
- 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.);
- 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;
- Consolidate thematic planting approach in commercial centres including use of select cultivars of deciduous species to enhance microclimatic conditions and to provide seasonal colour and texture;
- Prioritise Penshurst Street as a key connector road 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 focussing on the Bales Park area (incl. Sydney Street, Stanley Street and Johnson Street) – see discussion on remnant BGHF components);
- Implement a strategy using provenance-sourced material consistent with critically endangered Blue Gum High Forest (i.e. avoid use of generic native species in this context).

PRECINCT 8: NORTH-CENTRAL MIXED RESIDENTIAL/ CONSERVATION
Proposed street tree species

Tree Species	Common Name	evergreen	deciduous	habit/form ¹	verge width ²	power-lines ³
<i>Acmena smithii</i> var. minor	Lilly Pilly (incl. cv)**	E	-	cr	N	Y
<i>Alloxylon flammeum</i>	Tree Waratah	E	-	cu	M	N
<i>Angophora costata</i> (BGHF)*	Smooth-barked Apple	E	-	os	M	N
<i>Angophora floribunda</i> (BGHF)*	Rough-barked Apple	E	-	os	M	N
<i>Backhousia myrtifolia</i> (BGHF)*	Grey Myrtle	E	-	cr	N	Y
<i>Callistemon</i> spp.	Bottlebrush	E	-	cn	M	Y
<i>Caesalpinia ferrea</i>	Leopard Tree	-	D	cs	M	N
<i>Cupaniopsis anacardioides</i>	Tuckeroo	E	-	cr	N	Y
<i>Elaeocarpus eumundi</i>	Eumundi Quandong	E	-	cu	M	N
<i>Eucalyptus haemastoma</i>	Scribbly Gum	E	-	os	W	N
<i>Eucalyptus paniculata</i> (BGHF)*	Grey Ironbark	E	-	os	W	N
<i>Eucalyptus pilularis</i> (BGHF)*	Blackbutt	E	-	os	W	N
<i>Eucalyptus saligna</i> (BGHF)*	Sydney Blue Gum	E	-	os	W	N
<i>Flindersia australis</i>	Australian Teak	E	-	cs	M	N
<i>Flindersia schottiana</i>	Bumpy Ash	E	-	cs	M	N
<i>Fraxinus</i> spp.	Ash	-	D		M	Y
<i>Jacaranda mimosifolia</i>	Jacaranda	-	D	os	M	N
<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>Magnolia grandiflora</i> 'Exmouth'	Southern Magnolia cv.	E	-	cu	M	N
<i>Magnolia grandiflora</i> 'Little Gem'	Southern Magnolia cv.	E	-	cu	N	Y
<i>Michelia</i> spp.	Magnolia	E	-		M	N
<i>Olea europaea</i> var. <i>europaea</i>	Olive	E	-	cn	M	Y
<i>Pistacia chinensis</i>	Chinese Pistachio	-	D	cr	M	N
<i>Platanus x acerifolia</i>	London Plane	-	D	os	W	N

Willoughby Street Tree Master Plan

WILLOUGHBY CITY COUNCIL

October 2014

LandArc Pty Limited

Int. Ref: 82741068

<i>Podocarpus elatus</i>	Plum Pine	E	-	cn	M	N
<i>Pyrus calleryana</i> 'Cleveland Select'	Ornamental Pear	-	D	cr	M	N
<i>Pyrus calleryana</i> 'Capital'	Ornamental Pear	-	D	cn	N	N
<i>Pyrus calleryana</i> 'Chanticleer'	Ornamental Pear	-	D	cn	M	N
<i>Syncarpia glomulifera</i> (BGHF)*	Turpentine	E	-	cs	W	N
<i>Tristania laurina</i>	Water Gum	E	-	cr	M	Y
<i>Ulmus glabra</i> 'Lutescens'	Golden Elm	-	D	cu	M	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.

*BGHF LOCAL NATIVE SPECIES recommended for Bales Park area (Sydney, Stanley and Johnson Streets).

BGHF = Blue Gum High Forest (critically endangered EEC);

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

*** *Lagerstroemia indica* x *L. fauriei* select cultivars including "Acoma", "Sioux", "Natchez" and "Tuscarora".

'HABIT/ FORM OF TREE

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

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

²MINIMUM VERGE WIDTH (incl. footpath):

N = narrow (<2.5 metres)

M = medium (2.5-4.0 metres)

W = wide (>4.0 metres)

³PLANTING 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

Willoughby Street Tree Master Plan

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Cherry Satinash
Syzygium luehmannii



Weeping Lilly Pilly
Waterhousea floribunda



Water Gum cv. Luscious
Tristaniaopsis laurina 'Luscious'



Golden Penda
Xanthostemon chrysanthus