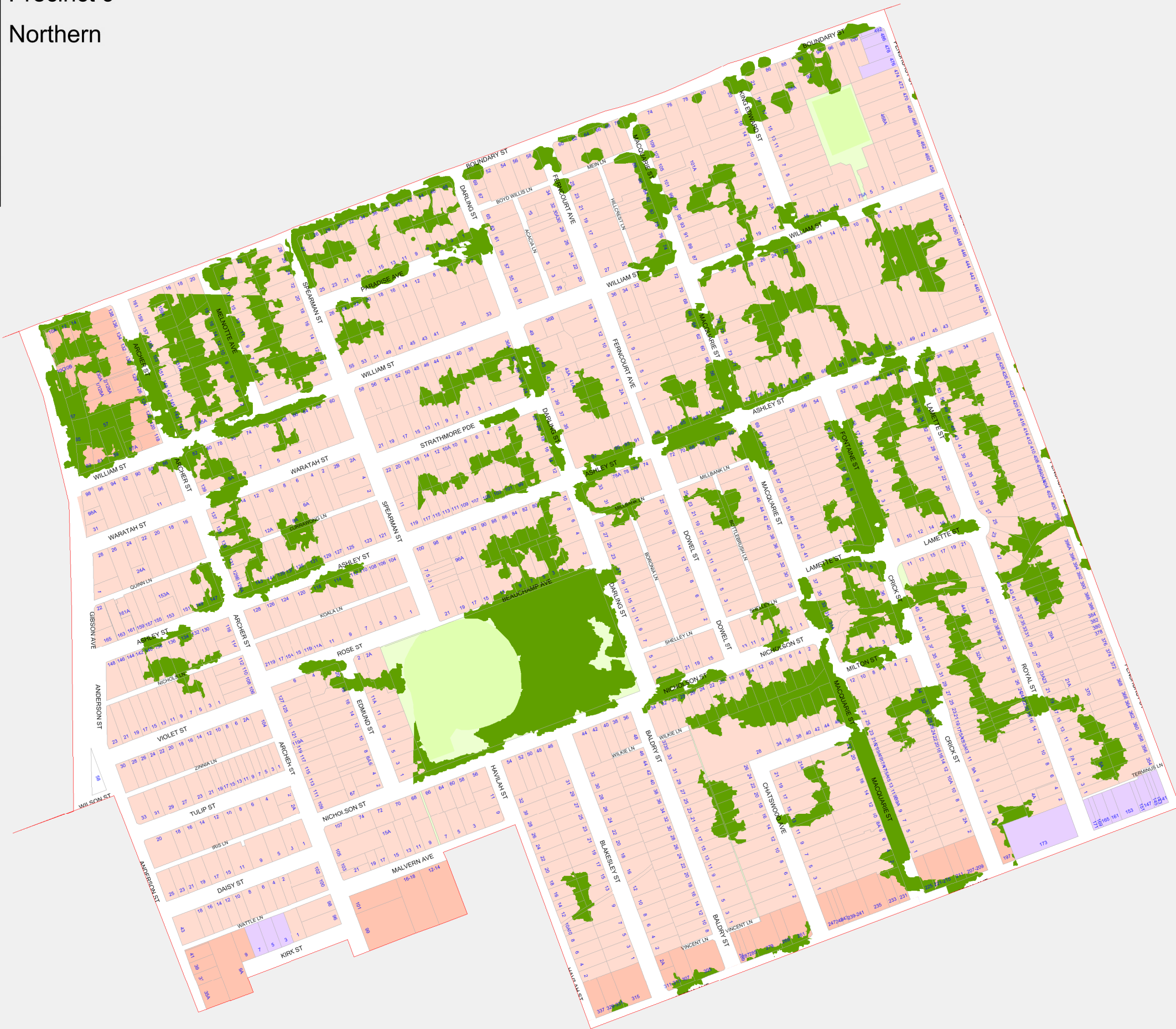
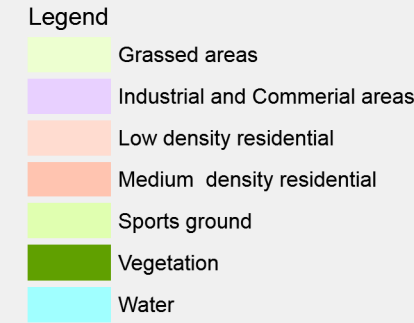


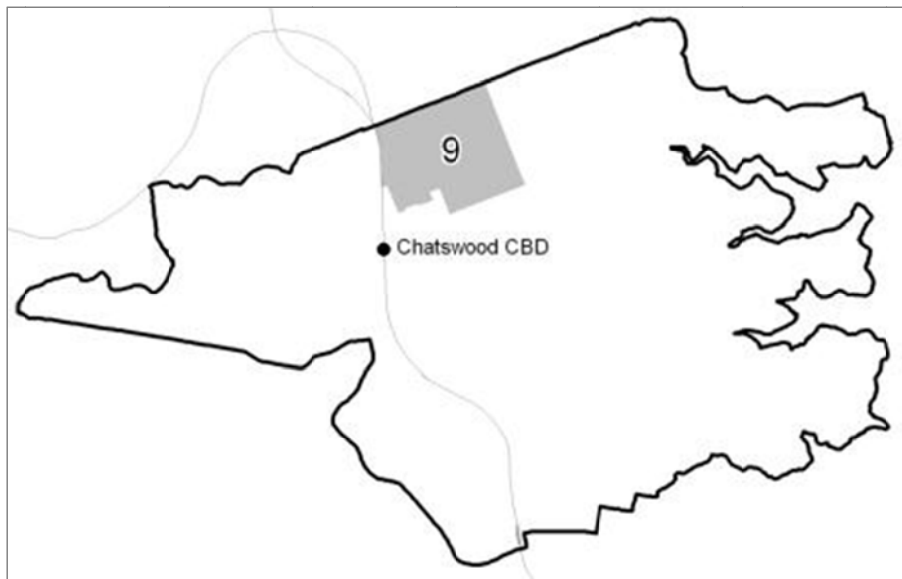
Willoughby City Councils Street Tree Master Plan.

Precinct 9

Northern



9. Northern mixed residential (incl. Conservation Area)



Key landscape features

Geology and soils:

Wianamatta Group shales (approx. 90% of precinct) – shallow to moderately deep loams, silty-loams and clay-loam soils of low to moderate fertility;
Hawkesbury sandstone (approx. 10% of precinct) – eastern area/ Lamette Street – fine to medium-grained quartz sandstone and inter-bedded shale lenses; soils are typically shallow, apedal, porous sandy to sandy loams.

Topography, slope and aspect:

Generally, undulating to rolling low hills with no rock outcrops grading to localised steep slopes (eastern portion) with some sandstone outcropping and benches; aspect varies (predominantly south to south-east).

Cultural landscape:

Predominantly low density residential (incl. single large Conservation Area); some medium density residential/ commercial (along Victoria Avenue, adjacent to Chatswood CBD and Pacific Highway; Boundary Street (northern boundary), Penshurst Street (eastern boundary), Victoria Avenue/ CBD (southern boundary) and Pacific Highway (western boundary)

Presence of remnant native vegetation:

The Blue Gum High Forest (BGHF) and Sydney Turpentine-Ironbark Forest (STIF) communities of this precinct were largely cleared during the nineteenth century. Some remnant canopy trees (regrowth) have been retained in Beauchamp Park (adjacent to Beauchamp Avenue, Nicholson Street and eastern side of the Oval). Tree species include Blackbutt (*Eucalyptus pilularis*), Red Mahogany (*Eucalyptus*

resinifera), Rough-barked Apple (*Angophora floribunda*), Grey Ironbark (*Eucalyptus paniculata*) and Turpentine (*Syncarpia glomulifera*); also BGHF tree species have been planted in the park (unknown provenance).

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 Fontaine Street, Lamette Street, Macquarie Street, Baldry Street, (sections of) Ashley and William Streets, Melnotte Avenue, Nicholson Street and Victoria Avenue.

Heritage Conservation Area:

1. North Chatswood Heritage Conservation Area: C10 (WDCP 2012 Part H: Heritage Item H3.11).

Historic significance:

Earliest land grant was in 1825; timber getting and land clearing followed however development was slow after first subdivision in 1854. Proposed construction of the railway generated a land subdivision boom during the 1880s. Small farms and orchards, flowers/ vegetable growing and Chinese market gardens gradually gave way to housing particularly after the First World War. This precinct conserves a rich variety of predominantly Federation and Inter-war period bungalow style dwellings as well as some Federation two-storey mansions and late-Victorian houses.

THE WDCP notes the importance of Beauchamp Park (1899) as the original central square. It also highlights the significance of established street trees dating from the Inter-war period including Brush Box (*Lophostemon confertus*) and Canary Island Date Palms (*Phoenix canariensis*) (WDCP, 2012, H3-38). Together these species reinforce a sense of cohesiveness, order and formality. These mature, single species avenues are an integral part of the town centre design and highly significant at the local level. Renewal or replacement planting should be in accordance with heritage palettes (i.e. using original species in this context) and any unsympathetic infill planting should be phased out.

HCA-C10 Key period of significance: 1880-1930 (WDCP, 2012, H3-38)

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

Penshurst Street
Fontaine Street
Lamette Street
Macquarie Street
Nicholson Street
Ashley Street

Melnotte Avenue

Note: Baldry Street (*Podocarpus elatus*) is a Post-war plantation.

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 9: NORTHERN 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>Lophostemon confertus</i> (Brush Box) <i>Tristanopsis laurina</i> (Water Gum)
William Street/ Melnotte Avenue	<i>Lophostemon confertus</i> (Brush Box) <i>Phoenix canariensis</i> (Canary Island Date Palm) <i>Jacaranda mimosifolia</i> (Jacaranda)
Ashley Street	<i>Lophostemon confertus</i> (Brush Box) <i>Harpephyllum caffrum</i> (Wild Plum) <i>Eucalyptus</i> spp. (Eucalypts)
Nicholson Street	<i>Callistemon</i> spp. (Bottlebrush) <i>Gordonia axillaris</i> (Gordonia) <i>Phoenix canariensis</i> (Canary Island Date Palm)
Baldry Street	<i>Podocarpus elatus</i> (Plum Pine)
Blakesley Street	<i>Gordonia axillaris</i> (Gordonia) <i>Bauhinia</i> sp. (Butterfly or Orchid Tree) <i>Harpulia pendula</i> (Tulipwood)
Havilah Street	<i>Flindersia australis</i> (Australian Teak) <i>Geijera parviflora</i> (Wilga)
Macquarie Street/ Fontaine Street	<i>Lophostemon confertus</i> (Brush Box) <i>Liquidambar styraciflua</i> (Liquidambar)

Key precinct objectives

- Protect the historic character, scale and integrity of Victorian, Federation and Inter-war period streetscapes within the North Chatswood Heritage Conservation Area;
- Protect and maintain the integrity and intactness of mature single species avenues (incl. Inter-war period avenues of Brush Box and Canary Island Date Palms);
- 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;
- Promote strategies to supplement and enhance ecological connectivity focussing on Beauchamp Park to Scotts Creek corridor (incl. eastern end of Nicholson Street, Milton, Crick, Lamette and Royal Streets);
- Implement a strategy using provenance-sourced material consistent with Blue Gum High Forest and Sydney Turpentine-Ironbark Forest (i.e. avoid use of generic native species in this context and progressively phase-out generic native planting in these streets).

PRECINCT 9: NORTHERN 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> (BGHF/STIF)*	Lilly Pilly	E	-	cr	N	N
<i>Acmena smithii</i> var. minor	Lilly Pilly (incl. cv)**	E	-	cr	N	Y
<i>Alectryon subcinereus</i> (BGHF/STIF)*	Native Quince	E	-	cr	N	Y
<i>Angophora costata</i> (BGHF/STIF)*	Smooth-barked Apple	E	-	os	M	N
<i>Angophora floribunda</i> (BGHF)*	Rough-barked Apple	E	-	os	M	N
<i>Backhousia myrtifolia</i> (BGHF/STIF)*	Grey Myrtle	E	-	cr	N	Y
<i>Corymbia maculata</i>	Spotted Gum	E	-	no	M	N
<i>Elaeocarpus eumundi</i>	Eumundi Quandong	E	-	cu	M	N
<i>Eucalyptus paniculata</i> (BGHF/STIF)*	Grey Ironbark	E	-	os	W	N
<i>Eucalyptus pilularis</i> (BGHF/STIF)*	Blackbutt	E	-	os	W	N
<i>Eucalyptus resinifera</i> (BGHF/STIF)*	Narrow-leaved Ironbark	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>Ginkgo biloba</i>	Maidenhair Tree	-	D		M	N
<i>Gordonia axillaris</i>	Gordonia	E	-	cu	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>	Southern Magnolia cv.	E	-	cu	M	N
# <i>Phoenix canariensis</i>	Canary Is. Date Palm	E	-	-	M	N
<i>Pistacia chinensis</i>	Chinese Pistachio	-	D	cr	M	N
<i>Platanus x acerifolia</i>	London Plane	-	D	os	W	N
<i>Podocarpus elatus</i>	Plum Pine	E	-	cn	M	N
<i>Pyrus calleryana</i> 'Cleveland Select'	Ornamental Pear	-	D	cr	M	N

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<i>Pyrus calleryana</i> 'Capital'	Ornamental Pear	-	D	cn	N	N
<i>Quercus palustris</i>	Pin Oak	-	D	or	W	N
<i>Syncarpia glomulifera</i> (BGHF/STIF)*	Turpentine	E	-	cs	W	N
<i>Syzygium luehmannii</i>	Cherry Satinash	E	-	cu	N	Y
<i>Syzygium paniculatum</i>	Magenta Lilly Pilly	E	-	cr	M	N
<i>Tristanopsis laurina</i>	Water Gum	E	-	cr	M	Y
<i>Ulmus parvifolia</i>	Chinese Elm	-	D	os	W	N
<i>Ulmus glabra</i> 'Lutescens'	Golden Elm	-	D	cu	M	N

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

*BGHF/ STIF LOCAL NATIVE SPECIES recommended for Beauchamp Park to Scotts Creek corridor (incl. eastern end of Nicholson Street, Milton, Crick, Lamette and Royal Streets).

BGHF = Blue Gum High Forest (critically endangered EEC);
STIF = Sydney Turpentine-Ironbark Forest (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".

Phoenix canariensis to be used only within existing plantations in Conservation Area

'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

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Cherry Satinash
Syzygium luehmannii



Weeping Lilly Pilly
Waterhousea floribunda



Water Gum cv. Luscious
Tristaniaopsis laurina 'Luscious'



Golden Penda
Xanthostemon chrysanthus