

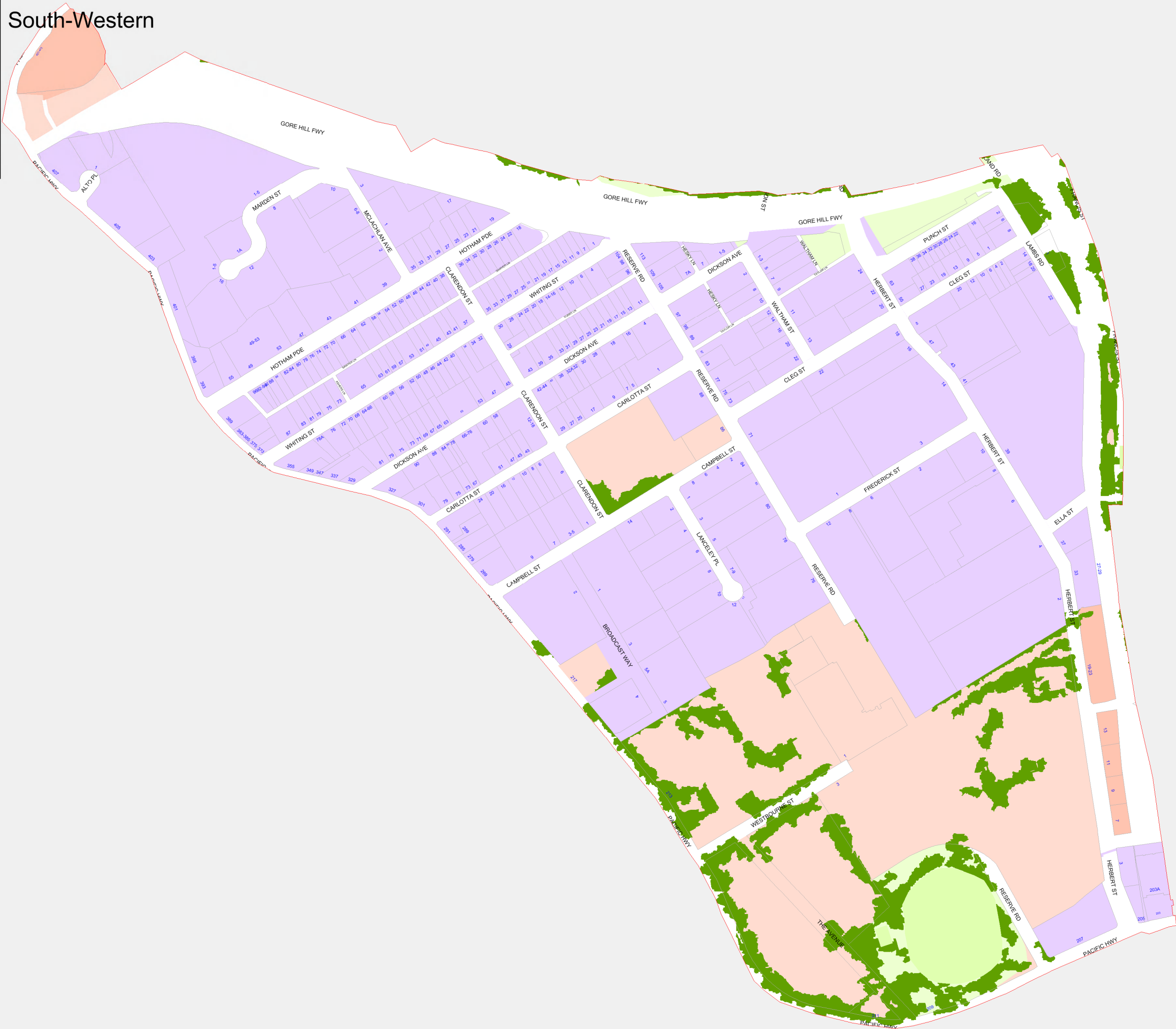
Willoughby City Councils Street Tree Master Plan.

Precinct 4

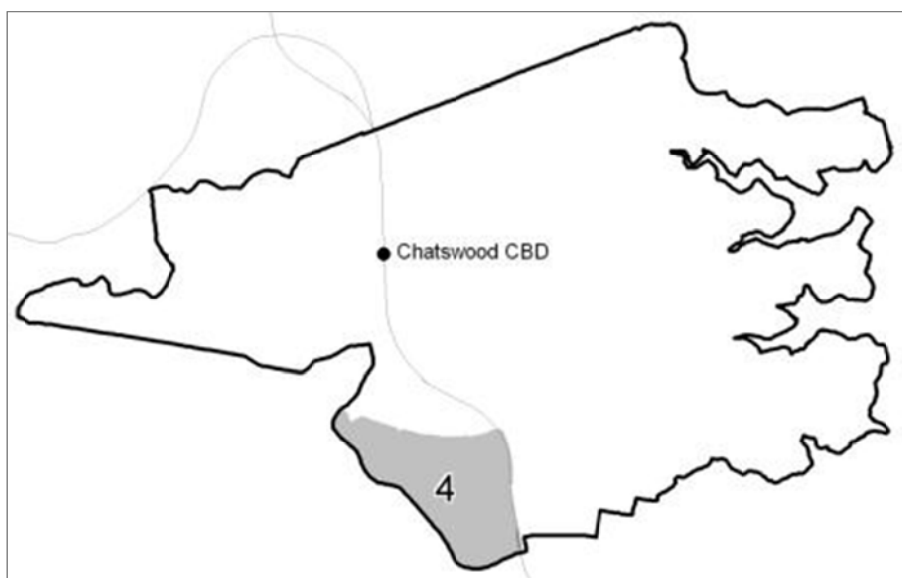
South-Western



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



4. South-western mixed use and industrial area



Key landscape features

Geology and soils:

Wianamatta Group shales (approx. 60% of precinct) – shallow to moderately deep loams, silty-loams and clay-loam soils of low to moderate fertility;

Hawkesbury sandstone (approx. 10%) – north-eastern corner near Gore Hill Freeway – fine to medium-grained quartz sandstone and inter-bedded shale lenses; soils are typically shallow, apedal, porous sandy to sandy loams.

Disturbed terrain/ ex situ fill material (approx. 30% of precinct/ two areas) – north-western corner adjoining Gore Hill Freeway and large central area.

Topography, slope and aspect:

Undulating to rolling low hills (steeper in northern portion); outcropping sandstone rock benches and broken scarps in north-east portion; disturbed terrain includes significant cut and fill profiles; aspect varies considerably.

Cultural landscape:

General and light industrial; Gore Hill Memorial Cemetery; Royal North Shore Hospital; Pacific Highway (western and southern boundary), rail corridor (eastern boundary) and Gore Hill Freeway (northern boundary)

Presence of remnant native vegetation:

Reserve Road (adjacent to Gore Hill Oval) – mixed species group/ Remnant Blue Gum High Forest (BGHF) community (source: *Willoughby Natural Heritage Register*).

Streetscape type/character:

Dominant cultural plantations/ mixed exotic and native tree species (evergreen and deciduous); typically mixed range of *Eucalyptus/ Corymbia* spp. within each street (e.g. Dickson Avenue (approximately 850 metres in length) has 13 different native tree species, of varying age structure, out of a total of 51 planted trees).

Heritage Conservation Areas:

n/a

Significant Inter-war period plantations:

Pacific Highway (Gore Hill Memorial Cemetery boundary row plantation)

Age structure of cultural street tree plantations:

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

PRECINCT 4: SOUTH-WESTERN MIXED USE AND INDUSTRIAL AREA Existing typical or dominant planted tree species *	
Location	Tree Species (cultivated)
Herbert Street	<i>Lophostemon confertus</i> (Brush Box) <i>Eucalyptus microcorys</i> (Tallowwood) <i>Corymbia maculata</i> (Spotted Gum)
Cleg Street	<i>Lophostemon confertus</i> (Brush Box) <i>Tristanopsis laurina</i> (Water Gum) <i>Callistemon viminalis</i> (Weeping Bottlebrush)
Reserve Road	<i>Corymbia maculata</i> (Spotted Gum) <i>Jacaranda mimosifolia</i> (Jacaranda) <i>Cupaniopsis anacardioides</i> (Tuckeroo)

Dickson Avenue	<i>Eucalyptus microcorys</i> (Tallowwood) <i>Eucalyptus nicholii</i> (Narrow-leaved Black Peppermint) <i>Agonis flexuosa</i> (Willow Myrtle)
Campbell Street/ Frederick Street	<i>Ulmus parvifolia</i> (Chinese Elm) <i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark) <i>Corymbia maculata</i> (Spotted Gum)
Clarendon Street/ Hotham Parade	<i>Harpephyllum caffrum</i> (Wild Plum) <i>Eucalyptus microcorys</i> (Tallowwood) <i>Tristanopsis laurina</i> (Water Gum)

* NOTE: Street tree planting is dominated by a wide range of exotic and generic native trees and shrubs, including various cultivars.

Key precinct objectives

- 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;
- Provide appropriate massing of trees to reduce the bulk and scale of industrial buildings and associated infrastructure, where possible;
- Establish a consistent palette of dense, evergreen broadleaf species rather than open or sparse canopy trees of varying forms and shapes within industrial areas;
- Promote a more formal character using single species (deciduous) avenues within the southern urban portion of the precinct (i.e. adjacent to Royal North Shore Hospital/ St. Leonards station);
- Enhance microclimatic conditions and seasonal variation (e.g. maximise shade in summer, sun in winter and provide seasonal colour and texture.

PRECINCT 4: SOUTH-WESTERN MIXED USE AND INDUSTRIAL AREA
Proposed street tree species

Tree Species	Common Name	evergreen	deciduous	habit/form¹	verge width²	power-lines³
Industrial Areas:						
<i>Acmena smithii</i> var. <i>minor</i>	Lilly Pilly (incl. cv)*	E	-	cr	N	Y
<i>Afrocarpus falcatus</i>	Outeniqua Yellowwood	E	-	cs	W	N
<i>Backhousia myrtifolia</i>	Grey Myrtle	E	-	cr	N	Y
<i>Corymbia gummifera</i>	Red Bloodwood	E	-	os	M	N
<i>Cupaniopsis anacardioides</i>	Tuckeroo	E	-	cr	N	Y
<i>Eucalyptus paniculata</i> (BGHF)*	Grey Ironbark	E	-	os	W	N
<i>Flindersia</i> spp.	Ash	E	-	cs	M	N
<i>Glochidion ferdinandi</i>	Cheese Tree	E	-	cs	M	Y
<i>Hibiscus tiliaceus</i> var. <i>rubra</i>	Purple-leaf Hibiscus	E	-	cr	M	Y
<i>Melaleuca</i> spp.	Paperbark / Tea Tree	E	-		M	Y
<i>Syzygium paniculatum</i>	Magenta Lilly Pilly	E	-	cr	M	N
<i>Tristaniopsis</i> spp.	Water Gum	E	-	cr	M	Y
<i>Waterhousea floribunda</i>	Weeping Lilly Pilly	E	-	cs	M	N
<i>Xanthostemon chrysanthus</i>	Golden Penda	E	-	cr	N	Y
Royal North Shore Hospital/ St. Leonards station streetscapes:						
<i>Caesalpinia ferrea</i>	Leopard Tree	-	D	cr	M	N
<i>Pistacia chinensis</i>	Chinese Pistachio	-	D	cr	M	N
<i>Platanus x acerifolia</i>	London Plane	-	D	os	W	N
<i>Platanus x orientalis</i>	Oriental Plane	-	D	os	W	N
<i>Ulmus parvifolia</i>	Chinese Elm	-	D	os	W	N

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

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

¹HABIT/ 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:

= 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



Cherry Satinash
Syzygium luehmannii



Weeping Lilly Pilly
Waterhousea floribunda



Water Gum cv. Luscious
Tristaniaopsis laurina 'Luscious'



Golden Penda
Xanthostemon chrysanthus