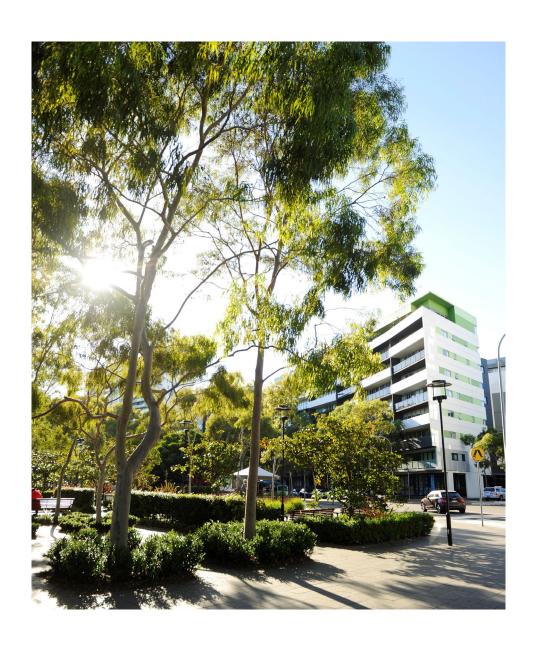


Tree Species List: Development and Use



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Tree species list: development and use

Introduction

Trees are the largest living things in the urban environment and are the biggest contributors to vital green infrastructure, a city's natural life support system. Trees are essential in cities. Their environmental, social, cultural and economic benefits are well established and beyond doubt.

The <u>City of Sydney Tree Species List</u> (the list) is a list of trees considered to be appropriate for planting within our local area. The list was developed with the assistance of professional arboricultural consultants, academics, landscape architects, an Indigenous consultant and experienced urban forest practitioners. It is hoped that the list will be a valuable resource and reference, to assist in the future selection and planting of trees on public and private land.

Why have a list?

Strategic and policy context

The production of the list aligns with many of the directions and actions listed within the City's Greening Sydney Strategy and Urban Forest Strategy.

A tool to assist selection

Selecting the most appropriate tree to be planted is an important process. It can be crucial to the long-term success of a landscape. To get the best results for the City or your project, the right tree must be planted in the right place, and at the right time. It can also be complicated, with many factors to be considered and balanced before arriving at a decision.

The data presented in the list will help to narrow down the potential options, to arrive at tree species that are most appropriate, based on the various site conditions, the design attributes, and any personal preferences.

A reference list of trees

The list will also serve as a resource to inform and educate, describing each tree and its preferred growing conditions through a variety of attributes and descriptive data.

Adapting to climate change

As Australia's climate changes over the next 50 to 100 years, the species of trees and plants used in our city today may not be suited to the range of conditions presented by the future climate. Research has found that Sydney's climate is likely to be more like Grafton (North Coast NSW) by 2050.

The urban forest can be vulnerable to changes in the environment. Climate change has the potential to reduce the quality and quantity of our urban forest due to the different abilities of tree species to cope with environmental changes or stresses. We must manage for the present but also for future generations, identify existing or future vulnerabilities and risks, and act where necessary to mitigate them, ensuring the urban forest of the future is more resilient than the urban forest of today.

Promoting urban forest resilience

A more diverse urban forest is generally considered to be more resilient to the impacts of pest or disease outbreaks and environmental changes like climate change. Increased diversity helps to manage the risk by distributing it across a larger number of species. A diverse forest can also provide a better range of habitat for wildlife and other environmental benefits.

However, the hardiness and resilience of the individual tree species is also critically important. If a broader range of trees is planted, but those trees are less able to withstand the difficult urban growing conditions, the overall resilience of the forest would be reduced. Similarly, poor outcomes are to be expected if we restrict our selections to a narrow range of species that are not well adapted to the predicted future climate for our area. Selecting a broad range of trees that are well suited to the local urban environment, both now and into the future, is the best approach.

The list may help to promote a more diverse and resilient urban forest through awareness of the wide variety of species suited to our local area and the site conditions that are most appropriate for them.

Who will use the list?

It is expected the list will be used by a wide variety of interested people involved in the design or care of private or public open spaces, landscapes, or gardens, including:

- Landscape architects or designers, to specify designs for new developments
- Arborists and other related industry professionals
- Property owners and other land managers
- Anyone interested in planting trees and wanting to learn more.

Disclaimer

The data and information contained within this document and the list are provided as general information only and should not be relied upon as professional advice. Users may refer to and rely on the list at their own risk. The City will not be liable for any actions, claims, losses, damages (whether direct or indirect), liabilities or expenses arising from or associated with relying on this document or the list.

Method

An iterative and collaborative approach was used, with various experienced professionals used at various stages in the drafting, development, and review of the list.

Reference material and collation of data

An initial draft list of potential tree species was collated from various sources, including:

- The City of Sydney inventory of street and park trees
- The trees listed within the City's Street Tree
 Master Plan
- Historical lists used for tree planting work associated with projects and upgrade work
- Lists used by the City to inform local residents of trees that may be suitable for planting on their property
- Publicly available lists used by other authorities in regions that currently have a climate that is similar to the future climate the City is predicted to have (e.g. The City of San Diego Street Tree List, Yamba Street Tree Guide)
- Lists used by arborists and landscape architects in their professional practice.

The tree species from the various sources were developed into a draft list by an experienced professional consulting arborist, along with informative data fields related to their origin, mature size, physical characteristics, and preferred growing considerations.

Peer review

A range of experienced and knowledgeable individuals were engaged to undertake a peer review of the draft list, with feedback helping to develop and refine various aspects of it. People involved in the peer review included:

- Professional consulting arborists
- Landscape architects
- Specialist in climate change and urban transformation
- An Indigenous consultant
- Tree management and urban forest practitioners
- The City's tree maintenance service providers.

The peer review process also assisted in identifying species that should potentially be excluded from the list, and additional species that should be included. Tree species excluded from the list are included with brief reasoning in Attachment A.

Resilience to future climate scenarios Sydney's changing climate

Climate is the average pattern of weather over a long period of time. Sydney's climate is classified as warm and temperate but recent observations and long-term empirical data suggest that Sydney's climate is changing, with these changes having the potential to affect everyday weather phenomena, such as rainfall frequency, increases in maximum and minimum temperatures and the frequency and intensity of floods and drought.

The effects of climate change are already being experienced throughout Australia. As a result of these changes, Sydney's climate is likely to have further increases in average temperatures and more frequent and extreme weather events. For example, when heatwaves occur, they will be hotter and last for longer.

These climate changes will impact the current urban tree population of Sydney and will likely affect rates of tree survival and tree species choices in the future.

Summary of the method for assessing future climate suitability

An assessment of tree species future climate suitability was performed by an academic who is a specialist in this field, engaged as a consultant to the City. The method involved an assessment of the climatic niche for each species and their tolerance to extreme climatic conditions. This assessment of each species was then compared with the future climate projections of the City of Sydney local area.

Occurrence records for tree species were collated from global and Australian sources and were filtered and cleaned to remove any results that could lead to miscalculation of climate niches.

Climate data was collated to establish a baseline of average climatic conditions (from 1979-2013) along with the future climate scenario for 2050. Two climate variables representing the extremes in temperature and precipitation were selected for use in the analysis, these being the maximum

temperature of the warmest month (MTWM) and the precipitation of the driest quarter (PDQ).

For each species, climate values of MTWM and PDQ were extracted from all occurrence records to characterise their realised climate niches under baseline climatic conditions based on the global geographic range for each species.

The upper and lower limits of the temperature and precipitation values across the species range were used to determine whether the climate of Sydney will likely exceed species' limits. For this, the threshold of the 95th percentile threshold was selected for the MTWM and the 5th percentile threshold was selected for the PDQ. These thresholds were used to assess the extremes of these variables as indicative of a species' thermal and drought stress tolerance for survival and growth.

Finally, a species safety margin was used as an index of tolerance. The safety margin was calculated as the difference between the species' climatic tolerance (for baseline climatic conditions) and the City of Sydney's future climatic conditions for the MTWM and PDQ parameters. The safety margin indicates how much warmer or drier a city could become before the realised climate niches of its resident species have been exceeded.

The climate suitability and tolerance assessment were used to exclude species that were identified as being clearly unsuitable for the future climate of our local area and to frame guidance within the list relating to vulnerability to maximum temperature extremes and drought conditions.

Other climate suitability references

The results of the species assessments were cross-referenced against other recently published sources of climate suitability data, including the online Which Plant Where database, to identify any disparities.

The real-world observations and experience of practicing arborists and urban foresters were also used to moderate the application of the results and form the guidance within the list.

How to use the list

Right tree in the right place

The success of every tree planting project, either large or small, is reliant on the right tree being chosen to match the site conditions and constraints. The various attributes of tree species need to be considered against the physical site conditions and any preferred design criteria and future desired outcomes. As a most simple example, the mature size of a tree must be appropriate for the available space.

Tree species selection

A range of tree attributes are presented in the list to help describe the physical characteristics of the trees, the functions they may perform in the landscape, and the conditions they prefer or be

vulnerable to. A large amount of data is provided for each tree species in the list, however, not all characteristics of the species may be relevant depending on the proposed planting location. When selecting from the list, the most useful or important attributes relevant to the successful establishment and long-term viability of the tree for a particular location should be prioritised.

For large scale or high value tree planting projects it is recommended to consult with an experienced arborist, landscape designer, or landscape architect, so they may apply the list when developing the design and specifications for the project. However, it is intended that home gardeners or anyone with an interest in planting trees on their property may use the list and find it helpful in guiding their tree planting choices.

Figure 1: List attributes

The following table outlines the attributes of tree species as presented in the list, with guidance to assist with interpreting the data.

Attribute	Description
Family Genus Species Variety	The taxonomic (scientific) name of each tree is presented along the specific variety if relevant.
Common Name	The most used or recognised common name in our local area is presented.
Origin	 Locally indigenous refers to those species which naturally occurred in the Sydney Basin (including the metropolitan area) Australian native refers to those species which naturally occurred in Australia Exotic refers to all species which originate outside of Australia and have been introduced
	The current list includes 21% locally indigenous trees, a further 34% native to Australia, and 45% exotic.

Attribute	Description
Size Classification	Size Classification allocates tree species into a size range considered typical for the species and is based nominal height and spread attributes and the tree size categories as defined in the City of Sydney DCP (Draft 2023).
	Palms, fruit trees and ferns are the exception due to their limited canopy.
Nominal Height	Nominal Height is based on the typical mature height of the species in a suitable urban growing environment.
Nominal Spread	Nominal Spread is based on the typical mature canopy width of the species in a suitable urban growing environment.

Shape refers to the natural habit of the tree when it is unencumbered by constraints such as inadequate space or light.

Note: The habit of certain species may cross over between the categories listed and the habit of many species will change as the tree reaches maturity.

The various habits are listed and illustrated below.

	Conical/Columnar/ Upright		Pyramidal
Shape	Vase	MAT .	Weeping
	Oval		Rounded
	Spreading		Open
	Irregular	F	Palm

Attribute	Description
Growth Rate	Relates to the typical rate of development to be expected in a suitable urban growing environment. - Slow - Moderate - Fast
Special Amenity Value	Identifies outstanding characteristics often valued from an amenity perspective. - Prominent Flowers - Prominent Fruit - Interesting Foliage - Interesting Bark
Dormancy	Refers to the characteristic of certain species to shed foliage during a seasonal dormant period (typically over winter or early spring, species dependent). Within the list, species dormancy relates specifically to the Sydney area as dormancy characteristics may vary in other regions. – Evergreen – Deciduous winter – Deciduous other
Light	Refers to a species tolerance to low light conditions, if relevant. A blank or no data indicates the species requires a sunny position. - Shade - Part shade
Exposure	Refers to the species tolerance to harsh growing conditions associated with exposed sites. Note: blank or no data indicates the species performs best in a moderately protected site, where not exposed to salt and/or wind. - Salt - Wind - Salt + Wind
Soil Moisture	Refers to a species tolerance to low or high soil moisture. Note: blank or no data indicates the species performs best in a moist free draining soil. Some species may also be adapted to a range of conditions. - Dry - Wet

Attribute	Description			
	A somewhat subjective attribute, based on practical observation, highlighting species current performance in the Sydney region in a range of environmental conditions.			
Reliability	- Very reliable			
. ionasmi,	- Somewhat reliable			
	- Unreliable			
	– Unknown			
Availability	How readily available the species is at major wholesale nurseries based on a review of current availability lists and communications with nurseries. - Common - Advanced Procurement - Unknown			
Vulnerable to maximum temperature extremes	Use only at sites with a suitable microclimate or conditions, such as relatively cool, shaded and/or irrigated sites, protected from reflected heat.			
Vulnerable to drought	Use only at sites with a suitable microclimate or conditions, such as sites with reliable soil moisture or irrigation.			
	A guide to how species should be considered and used in the landscape to support and enhance urban forest management.			
	Guidance	Explanation		
	Increase use	Species has proven to be a perform well, or has good potential, and should be used more commonly than it currently is		
Recommended Usage	Maintain current usage	No specific reason or justification exists to increase or decrease current usage patterns		
	Limit use	Species is currently over abundant, unreliable, or has specific issues that warrant a reduction is use		
	Trial	Species that are currently rarely planted but show potential as urban trees and warrant special effort to trial within the landscape.		

Future work and development

The list will be refined and developed over time, to suit the needs of users and to respond to any new data or urban forest management issues that may arise.

Feedback from Indigenous communities will be sought to help guide the presentation of any culturally relevant information.

Credits and Acknowledgements

The City of Sydney wish to credit and acknowledge the following people and organisations for their contribution to the development and review of the tree species list.

Draft list production

Anna Hopwood
 Director, TreeiQ
 Consultant specialising in tree management
 and urban forestry

Specialist Peer Review

- Doctor Manuel Esperon-Rodriguez
 Research Fellow Urban Transformation and Climate Change
 Hawkesbury Institute for the Environment, Western Sydney University
- Ciaron Dunn, Indigenous Consultant
 Djaambulgu Girrin Cultural Ecology

General Peer Review

- Robert Smart, Arterra Design Pty Ltd (consultants in landscape architecture and arboriculture)
- Active Tree Services, tree maintenance service provider
- Treescape Australasia, tree maintenance service provider
- City of Sydney Tree Management, Landscape Assessment and Parks Services teams

List development and finalisation

- Karen Sweeney, Urban Forest Manager, City of Sydney
- Phillip Julian, Urban Forester Strategy and Systems, City of Sydney

Attachment A

The species included in the Tree Species List is presented in the table below. More detail on the attributes of each species is outlined in the full Tree Species List.

Tree Species	Common Name
Acacia floribunda	Gossamer Wattle
Acacia podalyrifolia	Queensland Silver Wattle
Acacia melanoxylon	Blackwood
Acacia longifolia	Sydney Golden Wattle
Acacia fimbriata	Brisbane Golden Wattle
Acacia binervia	Coast Myall
Acacia decurrens	Green Wattle
Acer palmatum	Japanese Maple
Acer buergerianum	Trident Maple
Acmena ingens	Red Apple
Acronychia imperforata	Logan Apple
Afrocarpus falcatus	Outeniqua Yellowwood
Agathis moorei	Moore's Kauri
Agathis robusta	Queensland Kauri
Albizia julibrissin	Silk Tree
Albizia lebbeck	Siris Tree
Alectryon coriaceus	Beach Birds Eye
Alectryon tomentosus	Woolly Rambutan
Allocasuarina torulosa	Forest Oak
Allocasuarina littoralis	Black She-Oak
Alloxylon flammeum	Queensland Tree Waratah
Alphitonia excelsa	Red Ash
Alphitonia petriei	White Ash
Angophora hispida	Dwarf Apple
Angophora costata	Sydney Red Gum
Angophora floribunda	Rough-Barked Apple
Araucaria heterophylla	Norfolk island Pine
Araucaria cunninghamii	Hoop Pine
Araucaria bidwillii	Bunya Pine
Araucaria columnaris	Cook Island Pine

Tree Species	Common Name
Arbutus unedo	Irish Strawberry Tree
Arbutus menziesii	Madrone
Arbutus canariensis	Canary Island Strawberry Tree
Arbutus andrachnoides	Hybrid Strawberry Tree
Archidendron mullerianum	Veiny Lace Flower
Archontophoenix cunninghamiana	Bangalow Palm
Archontophoenix alexandrae	Alexander Palm
Argyrodendron actinophyllum	Black Booyong
Auranticarpa rhombifolia	Diamond Leaf Pittosporum
Backhousia myrtifolia	Grey Myrtle
Backhousia citriodora	Lemon Myrtle
Bambusa sp.	Bamboo
Banksia serrata	Old Man Banksia
Banksia ericifolia	Heath Banksia
Banksia integrifolia	Coast Banksia
Banksia robur	Swamp Banksia
Banksia aemula	Wallum Banksia
Barringtonia asiatica	Barringtonia
Bauhinia blakeana	Hong Kong Orchid Tree
Bauhinia variegata	Orchid Tree
Beilschmiedia obtusifolia	Blush Walnut
Betula nigra	Black Birch
Bismarckia nobilis	Bismarck Palm
Brachychiton rupestris	Bottle Tree
Brachychiton acerifolius	Illawarra Flame Tree
Brachychiton populneus	Kurrajong
Brachychiton discolor	Queensland Lacebark
Brachychiton x roseus	Kurrajong Flame
Buckinghamia celsissima	Ivory Curl
Butia capitata	Blue Palm
Caesalpinia ferrea	Leopard Tree
Calliandra haematocephala	Red Powder Puff
Callicoma serratifolia	Black Wattle
Callistemon salignus	Willow Bottlebrush
Callistemon citrinus	Crimson Bottlebrush
Callistemon viminalis	Weeping Bottlebrush

Tree Species	Common Name
Callitris columellaris	White Cypress Pine
Callitris endicheri	Black Cypress Pine
Calodendrum capense	Cape Chestnut
Camellia japonica	Common Camellia
Carya illinoinensis	Pecan
Cassia fistula	Golden Shower
Cassia brewsteri	Leichhardt Bean
Castanospermum australe	Blackbean
Casuarina glauca	Swamp She-Oak
Casuarina cunninghamiana	River She-Oak
Catalpa bignonoides	Southern Catalpa
Cedrus libanni	Lebanese Cedar
Cedrus deodara	Deodar Cedar
Ceiba speciosa	Silk Floss Tree
Celtis australis	Southern Hackberry
Celtis paniculata	Native Hackberry
Ceratonia siliqua	Carob
Ceratopetalum apetalum	Coachwood
Ceratopetalum gummiferum	NSW Christmas Bush
Cercis canadensis	Eastern Redbud
Chamaerops humilis	Mediterranean Dwarf Palm
Citharexylum spinosum	Florida Fiddlewood
Citrus limon	Lemon
Combretum erythrophyllum	River Bush Willow
Cornus capitata	Evergreen Dogwood
Corymbia eximia	Yellow Bloodwood
Corymbia gummifera	Red Bloodwood
Corymbia maculata	Spotted Gum
Corymbia citriodora	Lemon-Scented Gum
Corymbia ficifolia (inc. varieties over 5m tall)	Red Flowering Gum
Corymbia variegata	Northern Spotted Gum
Cupaniopsis anacardioides	Tuckeroo
Cupressus sempervirens	Mediterranean Cypress
Cupressus macrocarpa	Monterey Cypress
Cupressus arozonica	Arizona Cypress

Tree Species	Common Name
Cupressus torulosa	Himalayan Cypress
Cyathea australis	Rough Tree Fern
Cyathea cooperi	Lacy Tree Fern
Davidsonia pruriens	Davidsons Plum
Delonix regia	Royal Poinciana
Dracaena draco	Canary Islands Dragon Tree
Drypetes deplanchei	Yellow Tulip
Dypsis lutescens	Golden Cane Palm
Dypsis decaryi	Triangle Palm
Elaeocarpus reticulatus	Blueberry Ash
Elaeocarpus obovatus	Hard Quandong
Elaeocarpus grandis	Blue Quandong
Elaeocarpus eumundi	Eumundi Quandong
Eucalyptus piperita	Sydney Peppermint
Eucalyptus pilularis	Blackbutt
Eucalyptus longifolia	Woollybutt
Eucalyptus robusta	Swamp Mahogany
Eucalyptus paniculata	Grey Ironbark
Eucalyptus grandis	Flooded Gum
Eucalyptus microcorys	Tallowwood
Eucalyptus saligna	Sydney Blue Gum
Eucalyptus punctata	Grey Gum
Eucalyptus haemastoma	Scribbly Gum
Eucalyptus botryoides	Bangalay
Eucalyptus rossi	Inland Scribbly Gum
Eucalyptus propinqua	Small Fruited Grey Gum
Eucalyptus elata	River Peppermint
Eucalyptus resinifera	Red Mahogany
Eucalyptus fibrosa	Red Iron Bark
Eucalyptus mannifera	Brittle Gum
Eucalyptus moluccana	Grey Box
Eucalyptus crebra	Narrow-Leaf Ironbark
Eucalyptus melliodora	Yellow Box
Eucalyptus macrorhyncha	Red Stringybark
Eucalyptus tereticornis	Forest Red Gum

Tree Species	Common Name
Eucalyptus microcarpa	Grey Box
Eucalyptus racemosa	Narrow-Leaved Scribbly Gum
Eucalyptus maidenii	Maiden's Gum
Eucalyptus sideroxylon 'Rosea'	Mugga Ironbark
Eucalyptus camaldulensis	River Red Gum
Eucalyptus calophylla	Marri
Eucalyptus globulus ssp. bicostata	Southern Blue Gum
Eucalyptus saligna x botryoides	Sydney Blue Gum
Ficus obliqua	Small-Leaved Fig
Ficus coronata	Sandpaper Fig
Ficus benjamina	Weeping Fig
Ficus macrophylla	Moreton Bay Fig
Ficus virens	White Fig
Ficus microcarpa 'var Hillii'	Hills Weeping Fig
Ficus superba Henneana	Cedar Fig
Ficus rubiginosa	Port Jackson Fig
Ficus religiosa	Sacred Fig
Ficus lyrata	Fiddle Leaf Fig
Flindersia australis	Crows Ash
Flindersia xanthoxyla	Yellowood Ash
Flindersia brayleyana	Queensland Maple
Flindersia schottiana	Silver Ash
Flindersia bennettiana	Bennett's Ash
Fraxinus pennsylvanica	Green Ash
Fraxinus angustifolia sub sp oxycarpa Raywoodii	Claret Ash
Fraxinus griffithii	Evergreen Ash
Fraxinus velutina	Arizona Ash
Geijera parviflora	Wilga
Gleditsia tricanthos 'Shademaster'	Honey Locust
Gleditsia tricanthos 'Sunburst'	Honey Locust
Glochidion ferdinandi	Cheese Tree
Gmelina leichhardtii	White Beech
Grevillea baileyana	Brown Silky Oak
Guioa semiglauca	Wild Quince
Hakea francisiana	Bottlebrush Hakea

Tree Species	Common Name
Harpephyllum caffrum	Harpephyllum
Harpullia pendula	Tulipwood
Hibiscus syriacus	Syrian Ketmia
Hibiscus rosa-sinensis	Chinese Hibiscus
Hibiscus tiliaceus	Coast Hibiscus
Howea forsteriana	Kentia Palm
Hymenosporum flavum	Native Frangipani
Jacaranda mimosifolia	Jacaranda
Jubaea chilensis	Chilean Wine Palm
Koelreuteria paniculata	Golden Rain Tree
Koelreuteria bipinnata	Chinese Rain Tree
Lagerstroemia indica x fauriei cv.	Crepe Myrtle
Lagerstroemia indica	Crepe Myrtle
Lagerstroemia speciosa	Pride of India
Laurus nobilis	Bay Tree
Leptospermum trinervium	Flakey Barked Tea Tree
Leptospermum petersonii	Lemon-Scented Tea Tree
Leptospermum laevigatum	Coast Tea Tree
Liquidambar styraciflua	Liquidambar
Liquidambar formosana	Chinese Sweet Gum
Liriodendron tulipifera	Tulip Tree
Livistona australis	Cabbage Tree Palm
Livistona chinensis	Chinese Fan Palm
Lophostemon suaveolens	Swamp Turpentine
Lophostemon confertus 'Variegatus'	Variegated Brush Box
Lophostemon confertus	Brush Box
Macadamia integrifolia	Macadamia
Magnolia grandiflora	Bull Bay Magnolia
Magnolia grandiflora 'Exmouth'	Southern Magnolia/ Bull Bay Magnolia
Magnolia grandiflora 'Little Gem'	Bull Bay Magnolia
Magnolia x soulangeana	Saucer Magnolia
Magnolia figo	Port Wine Magnolia
Magnolia liliiflora 'Nigra'	Mulan Magnolia
Magnolia doltsopa	Magnolia
Magnolia champaca	Himalayan Magnolia
Melaleuca linariifolia	Snow-In-Summer

Tree Species	Common Name
Melaleuca styphelioides	Prickly-Leaf Paperbark
Melaleuca ericifolia	Swamp Paperbark
Melaleuca quinquenervia	Broad-Leaf Paperbark
Melaleuca bracteate 'Revolution Gold'	Black Tea-Tree
Melaleuca bracteata	Black Tea-Tree
Melaleuca armillaris	Bracelet Honey Myrtle
Melaleuca leucadendra	Weeping Paperbark
Melicope elleryana	Pink Flowered Doughwood
Meryta denhamii	Mertya
Metasequoia glyptostroboides	Dawn Redwood
Michelia alba	White Sandalwood
Murraya paniculata	Orange Jessamine
Nyssa sylvatica	Tupelo
Olea europaea subsp. europaea	European Olive
Pararchidendron pruinosum	Snow Wood
Persea americana	Avocado
Photinia glabra	Red Photinia
Photinia serrulata	Taiwanese Photinia
Pinus halepensis	Aleppo Pine
Pinus canariensis	Canary Island Pine
Pinus roxburghii	Chir Pine
Pistacia chinensis	Chinese Pistachio
Platanus x acerifolia	London Plane Tree
Platanus occidentalis	American Sycamore
Platanus orientalis	Oriental Plane Tree
Platanus orientalis 'Digitata'	Oriental Plane Tree
Platanus orientalis 'Insularis'	Oriental Plane Tree
Plumeria obtusa	Singapore Frangipani
Plumeria acutifolia	Frangipani
Podocarpus elatus	Plum Pine
Podocarpus henkelii	Henkels Yellowood
Polyalthia longifolia	Indian Mast Tree
Polyscias elegans	Celery Wood
Polyspora axillaris	Fried Egg Plant
Populus deltoides	Cottonwood
Populus simonii	Simon Poplar

Tree Species	Common Name
Pyrus calleryana 'Chanticleer'	Callery Pear
Pyrus calleryana	Callery Pear
Pyrus nivalis	Snow Pear
Quercus phellos	Willow Oak
Quercus x heterophylla	Bartram Oak
Quercus virginiana	Live Oak
Quercus coccinea	Scarlet Oak
Quercus acutissima	Sawtooth Oak
Quercus palustris	Pin Oak
Quercus ilex	Holm Oak
Quercus cerris	Turkey Oak
Quercus suber	Cork Oak
Quercus Iusitanica	Portuguese Oak
Quercus canariensis	Mirbeck's Oak
Quercus agrifolia	California Live Oak
Rapanea howittiana	Brush Muttonwood
Robinia pseudoacacia 'Frisia'	Golden Robinia
Rodosphaera rhodanthema	Deep Yellowwood
Rothmannia globosa	Rothmannia
Sapium sebiferum	Chinese Tallow Tree
Schinus areira	Peppercorn Tree
Schizolobium parahyba	Brazilian Fern Tree
Stenocarpus sinuatus	Firewheel Tree
Styphnolobium japonicum	Japanese Pagoda Tree
Syncarpia glomulifera	Turpentine
Synoum glandulosum	Scentless Rosewood
Syzygium moorei	Coolamon
Syzygium smithii	Common Lilly Pilly
Syzygium luehmannii	Riberry
Syzygium floribundum	Weeping Lilly Pilly
Syzygium paniculatum	Magenta Lilly Pilly
Syzygium jambos	Rose Apple
Syzygium australe	Brush Cherry
Tabebuia impetiginosa	Pink Trumpet Tree
Taxodium distichum	Bald Cypress
Tibouchina urvilleana	Glory Bush

Tree Species	Common Name
Tibouchina granulosa	Purple Glory Tree
Tibouchina macratha	Glory Bush
Tilia cordata	Small-leaved Lime
Toona ciliata	Australian Red Cedar
Tristaniopsis laurina 'Luscious'	Water Gum
Tristaniopsis laurina	Water Gum
Ulmus parvifolia 'Todd'	Chinese Elm
Ulmus parvifolia	Chinese Elm
Washingtonia robusta	Mexican Fan Palm
Washingtonia filifera	Desert Fan Palm
Waterhousea floribunda 'Green Avenue'	Weeping Lilly Pilly
Waterhousea floribunda	Weeping Lilly Pilly
Wodyetia bifurcata	Foxtail Palm
Wollemia nobilis	Wollemi Pine
Xanthostemon chrysanthus	Golden Penda
Xylosma japonicum	Logwood
Zelkova serrata	Japanese Zelkova
Zelkova serrata 'Green Vase'	Japanese Zelkova

Attachment B

A list of species excluded from the Tree Species List is presented in the table below, along with a brief explanation as to reasoning or justification.

Tree Species	Common Name	Reasoning
Acer negundo	Box Elder	Tendency to be weedy
Acer negundo 'Variegatum'	Variegated Box Elder	Tendency to be weedy
Acer platanoides	Norway Maple	Unlikely to be suited to future climate
Acer rubrum 'October Glory'	Red Maple	Unlikely to be suited to future climate
Acokanthera oblongifolia	Bushman's Poison	Shrub
Agathis australis	Kauri	Unlikely to be suited to future climate
Alectryon excelsus	Titoki	Unlikely to be suited to future climate
Alnus jorullensis	Evergreen Alder	Short-lived in Sydney
Banksia marginata	Silver Banksia	Unlikely to be suited to future climate
Cedrus atlantica	Atlas Cedar	Unlikely to be suited to future climate
Celtis occidentalis	Common Hackberry	Tendency to be weedy
Celtis sinensis	Chinese Hackberry	Weed species
Chamaecyparis lawsoniana	Port Orford Cedar	Unlikely to be suited to future climate
Chamaecyparis obtusa 'Crippsii'	Japanese Cyprus	Unlikely to be suited to future climate
Cinnamomum camphora	Camphor Laurel	Weed species
Cordyline australis	Cabbage Palm	Unlikely to be suited to future climate
Cotinus coggygria	European Smoke Tree	Unlikely to be suited to future climate
Davidia involucrata	Dove Tree	Unlikely to be suited to future climate
Eriobotrya japonica	Loquat	Tendency to be weedy
Erythrina crista-galli	Cockspur Coral Tree	Tendency to be weedy
Erythrina sykesii	Common Coral Tree	Tendency to be weedy
Euphorbia pulcherrima	Poinsetta	Short-lived in Sydney, sap poisonous
Ficus elastica	Rubber Fig	Tendency to be weedy
Fraxinus angustifolia	Narrow Leaved Ash	Unreliable performance
Fraxinus excelsior Aurea	European Ash	Unlikely to be suited to future climate
Fraxinus excelsior	European Ash	Unlikely to be suited to future climate
Ginkgo biloba	Maidenhair Tree	Unlikely to be suited to future climate
Koelreuteria elegans subsp. formosana	Golden Rain Tree	Tendency to be weedy

Tree Species	Common Name	Reasoning
Leptospermum cilliatum	Purpureostemon	Unreliable performance
Ligustrum lucidum	Broad-Leaf Privet	Weed species
Ligustrum ovalifolium Aurea	Korean Privet	Weed species
Ligustrum sinense	Chinese Privet	Weed species
Metrosideros excelsa	New Zealand Christmas Tree	Highly susceptible to borer
Morus nigra	Black Mulberry	Tendency to be weedy
Morus alba 'Pendula'	White Mulberry	Tendency to be weedy
Nerium oleander	Oleander	Shrub
Olea europaea subsp. 'Cuspidata'	African Olive	Tendency to be weedy
Parrotia persica	Persian Ironwood	Unlikely to be suited to future climate
Paulownia tomentosa	Princess Tree	Unlikely to be suited to future climate
Phoenix canariensis	Canary Island Date Palm	Susceptible to fusarium wilt, tendency to be weedy
Phoenix dactylifera	Date Palm	Susceptible to fusarium wilt
Phoenix reclinata	Senegal Date Palm	Susceptible to fusarium wilt, tendency to be weedy / spread
Phoenix roebelenii	Dwarf Date Palm	Susceptible to fusarium wilt
Phoenix rupicola	Cliff Date Palm	Susceptible to fusarium wilt
Phoenix sylvestris	Silver Date Palm	Susceptible to fusarium wilt
Pinus patula	Patula Pine	Unreliable performance
Pinus radiata	Monterey Pine	Tendency to be weedy
Pittosporum eugenioides	Lemonwood	Unlikely to be suited to future climate
Populus alba 'Pyramidalis'	Silver Poplar	Unreliable performance
Populus alba	Silver Poplar	Unlikely to be suited to future climate
Populus nigra 'Italica'	Lombardy Poplar	Unlikely to be suited to future climate
Populus simonii 'Fastigiata'	Simon Poplar	Unreliable performance
Populus x canadensis 'Aurea'	Canadian Poplar	Unreliable performance
Populus x canadensis	Canadian Poplar	Unlikely to be suited to future climate
Populus yunnanensis	Chinese Poplar	Unlikely to be suited to future climate
Prunus cerasifera 'Nigra'	Purple-Leaf Cherry Plum	Unlikely to be suited to future climate
Prunus cerasifera	Cherry Plum	Unlikely to be suited to future climate
Prunus x blireana	Purple-Leaf Cherry Plum	Unreliable performance
Pyrus communis	European Pear	Unlikely to be suited to future climate
Pyrus ussuriensis	Manchurian Pear	Unlikely to be suited to future climate

Tree Species	Common Name	Reasoning
Quercus robur	European Oak	Unlikely to be suited to future climate
Robinia pseudoacacia	Black Locust	Thorny uncultivated rootstock
Schefflera arboricola	Dwarf Umbrella Tree	Tendency to be weedy
Spathodea campanulata	African Tulip Tree	Tendency to be weedy
Strelitzia nicolai	Giant White Bird of Paradise	Tendency to be weedy
Syagrus romanzoffiana	Cocos Palm	Tendency to be weedy
Thevetia peruviana	Yellow Oleander	Tendency to be weedy
Thuja plicata	Western Red Cedar	Unreliable performance
Trachycarpus fortunei	Chinese Windmill Palm	Unlikely to be suited to future climate
Ulmus glabra 'Lutescens'	Scots Elm	Unlikely to be suited to future climate, susceptible to Dutch elmsdisease
Ulmus glabra	Scots Elm	Unlikely to be suited to future climate, susceptible to Dutch elms disease
Ulmus procera	English Elm	Unlikely to be suited to future climate, susceptible to Dutch elms disease
Ulmus x hollandica 'Vegeta'	Dutch Elm	Susceptible to Dutch elms disease

