

Climate Ready Eastern Adelaide

Street Tree Species Guideline

A working guideline to help with climate ready greening in the eastern region





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Street Tree Species Guideline

A working guideline for Resilient East Council staff to consider for street tree replacement programs, street upgrades and open space to help increase greening for climate resilience in the eastern region.

(Version 1 Dec 2020)

Background

Resilient East Councils are acutely aware of the direct risks that climate change creates for urban canopy cover green spaces and particularly on our street trees as well as greater indirect risks such as pathogens and plant parasites which can further harm trees under climate stress.

There is a wealth of collective knowledge across the Resilient East Councils which continues to grow through trialling new strategies and reviewing the probable causes or poor tree health and mortality. To date this knowledge was only shared ad hoc and informally.

What is this guideline?

This Guideline captures practical knowledge of many Resilient East council Arborists to assist in urban tree selection. It is a list of over 100 common trees species found in this region with an assessment of various attributes. Arborists used their local industry knowledge to assess attributes that relate to the suitability of a tree in a heating and drying climate including: useful life expectancy, pruning and water needs, its resilience to drought, pests and severe weather events. Trees found in the landscape but might now be inappropriate have not been included.

What are the predicted climate impacts for Adelaide? (Green G and Pannell A (2020))

Globally we are at 1°C of warming already, with the average for South Australia being higher at 1.3°C. Under a high emissions scenario, by 2050 it is projected that:

- Average temperature increases by up to 2.1°C
- The number of days over 35°C increase by 40% and 40°C by 50%
- Annual rainfall decline between 6-15%, and more seasonal variability (greatest decline in spring)

• More extreme weather including heatwaves, storms, flooding and fire risk days.

Some of the related impacts of these climatic changes on trees include: increased stress on water resources and reduced water availability throughout the year, increasing demand for irrigation, loss of biodiversity, potential changes to growing season and plant growth, and increased range and migration of pest plants and animals.

What is the purpose of this guideline?

The Guideline has been developed to assist Resilient East Councils plant a diversity of species that will be suitable in a changing climate.

The Guideline is not a rigid decision-making tool, as there are many factors which may influence a selection process including community preferences and expectations, soil condition, slope, aspect, biodiversity needs, and water and space availability.

What the Guideline can do is provide useful information relating to how a species selection and or how several plant species, trees and shrubs, could perform to meet needs in a particular location.

The Guideline can also assist in communicating why some species of trees may not be suitable in a location, either now or into the future, with continuing impacts of climate change, to encourage diversity within our streets and to reassess risks for the current tree stock.

How can it be used?

This Guideline can be used to support Council staff contractors, landscapers, private developers and existing property owners in street tree selection, particularly those in eastern Adelaide



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It can be used to inform updates of street tree lists and improve biodiversity by demonstrating the range of trees with comparable advantages.

How is it different to and can complement other plant selector tools?

The species guideline is specific for use within the Resilient East area. Industry knowledge from Arborists within the local government sector have tailored specific species traits and tolerances through years of on the ground observations and experience.

This list should not be used exclusively, but in conjunction with other resources available, for example, SAPN lists and the Botanic Gardens Plant Selector Tool.

Attribute definitions (top row of spreadsheet)

How can it be updated?

The list is not exclusive list of suitable trees but a working document that requires updating as necessary via notification to the Chair of the Resilient East Canopy and Heat Action Working Group to consider and approve amendments. We are facing unprecedented conditions while planning for long lived trees, so it is a work in progress. As more information becomes available this list can be updated to reflect current situations and science or changes.

If you have any suggested changes please contact <u>hello@resilienteast.com</u>.

Attribute	Definition and relevance
Origin	The origin of a plant may be a factor when seeking to maintain or support local provenance or choosing a plant. Indigenous: local to the area (local provenance), Native: local to elsewhere in Australia, Exotic : not from Australia originally.
Height	Describes tree height at maturity in metres assuming typical soil and water conditions.
Width	Describes trees crown diameter at maturity assuming typical soil and water conditions.
Form	The natural form or shape of the tree.
Evergreen or deciduous	 Evergreen trees can moderate micro climate all year round (cooling in summer and reducing frosts in winter) but they may also shed plant material all year round and can screen out winter sunshine. Deciduous trees can cool in summer and let full sunshine through in winter. They are associated with the Autumn shedding of leaves which can be a problem for stormwater systems and maintaining clear streets and footpaths. Semi-deciduous trees partially lose foliage during the year.
Life expectancy	The expected life span of a tree in an urban environment, estimated in year ranges.
Potential to gain legislative status	Species has the potential to gain legislative status in the future, because its circumference at 1 metre height may become greater than 2 metres or more.
Pruning needs	Relates to the frequency and extent of pruning required for a tree to be managed in an urban environment such as footpath and road clearances – high, moderate or low.













Water needs	Identifying where trees might benefit from water sensitive design solutions.
Pests and Disease	Any known pests or disease currently observed as impacting this species.
Drought tolerance	The recognised ability of a tree species to endure prolonged dry periods and higher temperatures. There are recognised examples of species that already suffer from poor health and mortality during drought.
Severe weather event tolerance	Trees recognised as having a low, moderate or high tolerance to storm events.
Tolerance to Development Impacts.	Describes species tolerance to urban disturbances and constraints such as cutting off tree roots, soil compaction or limb removal.
Shade	Describes amount of shade provided by tree at maturity – low, moderate, high.
Important habitat for fauna	Trees that provide nesting and shelter opportunities for urban birds, mammals and insects as well as food sources in flowers, fruit and seed will support urban biodiversity. Tree hollows may take more 60-100 years to form and it is unlikely that many trees will reach that duration of life unless adequately management. Ranked at low, moderate, high.
Regulated to plant under powerlines	Trees that may be planted in proximity to certain public powerlines as per the regulated list in the Electricity Act. <u>Check legislation for further detail</u> .

Resilient East is a regional climate partnership between state and local government organisations in eastern Adelaide. It is about making sure the eastern region remains a vibrant, desirable and productive place to live, work and visit, and that our businesses, communities and environments can respond positively to the challenges and opportunities presented by a changing climate.

Resilient East regularly works with agencies and organisations from all levels of government, NGOs, community groups, individuals and the private sector.

We acknowledge this land as the traditional lands for the Kaurna people and we respect their spiritual relationship with their country.

This Guideline was prepared by the Resilient East Canopy and Heat Working Group.

Created: August 2019 | Latest Revision: December 2020

Visit <u>resilienteast.com</u> for more information.

Contact us: hello@resilienteast.com

Climate projections referenced from: Green G and Pannell A (2020). <u>Guide to Climate Projections for Risk Assessment and</u> <u>Planning in South Australia</u>, Government of South Australia, Department for Environment and Water, Adelaide.



А	В	С	D	E	F	G H	1	J	К	L	м	N	0	Р	Q	R	S	Т	U
1	Name & Origin					Growth				Management		Risks			Ec	osystem Service	es	Legislation	
2 68	int species	Connon None	Origin	Heith	with	torn therefore the	us une tope	concil potential TO	Saive Status Prunte	weeks weeks	Peers or Disease	Drought Dieson	e sever weath	a role are to the second	ent snate	Polution	oval important at	rot peguaged und	weines
3 Acacia	melanoxylon	Blackwood	Indigenous	15 - 20 m	10 - 15 m	Oval / Round Evergreen	25 - 50 years	No	Low	Establishment Only		Moderate	Moderate	Tolerant	Moderate	Moderate	Moderate	No	
4 Acacia	pendula	Weeping Myall	Native	10 - 15 m	5 - 10 m	Weeping Evergreen	,	No	Moderate	Establishment Only	Gall Wasp and rust	High	Moderate	Tolerant	Moderate	Moderate	Moderate	No	
5 Acacia 6 Acer	pycnantha rubrum	Golden Wattle Red Maple	Indigenous Exotic	5 - 10 m 10 - 15 m	5 - 10 m 5 - 10 m	Oval / Round Evergreen Oval / Round Deciduous	,	No No	Low Low	Establishment Only Wide Verge - Optimal Conditions		High Moderate	Moderate Moderate	Susceptible Tolerant	Low Moderate	Low Moderate	Moderate Low	No	
7 Acer	x freemanii	Freemans Maple	Exotic	10 - 15 m	5 - 10 m	Oval / Round Deciduous		No	Low	Wide Verge - Optimal Conditions		Moderate	Moderate	Tolerant	Moderate	Moderate	Low	No	
8 Acer	buergerianum	Trident Maple	Exotic	5 - 10 m	5 - 10 m	Oval / Round Deciduous	,	No	Low	Wide Verge - Optimal Conditions		Moderate	Moderate	Tolerant	Moderate	Moderate	Low	Yes	
9 Acer	campestre	Field Maple	Exotic	5 - 10 m	5 - 10 m	Oval / Round Deciduous	25 - 50 years	No	Low	Wide Verge - Optimal Conditions		Moderate	Moderate	Tolerant	Moderate	Moderate	Low	No	
10 Acer 11 Acer	negundo sensation platanoides	Box Elder Maple Norway Maple	Exotic Exotic	5 - 10 m 10 - 15 m	5 - 10 m 5 - 10 m	Oval / Round Deciduous Oval / Round Deciduous	<i>,</i>	No No	Low Low	Wide Verge - Optimal Conditions Wide Verge - Optimal Conditions		Moderate Moderate	Low Moderate	Tolerant Tolerant	Moderate Moderate	Moderate Moderate	Low Low	NO	┢────┦
12 Agonis	flexuosa	Willow Myrtle	Native	5 - 10 m	5 - 10 m	Weeping Evergreen		Yes	High	Establishment Only	Tissue Dysfunction	High	Moderate	Tolerant	Moderate	Moderate	Moderate	No	
13 Albizzia	, julibrissan	Silk Tree	Exotic	< 5 m	< 5 m	Oval / Round Deciduous	25 - 50 years	No	Moderate	Wide Verge - Optimal Conditions		Moderate	Moderate	Susceptible	Low	Low	Low	No	
14 Allocasuarina	torulosa	Forest Oak	Native	5 - 10 m	5 - 10 m	Oval / Round Evergreen	,	No	Low	Establishment Only		High	High	Tolerant	Low	Moderate	Moderate	No	
15 Allocasuarina 16 Allocasuarina	verticillata littoralis	Drooping Sheoak Black Sheoak	Indigenous Native	10 - 15 m 5 - 10 m	5 - 10 m 5 - 10 m	Weeping Evergreen Pyramidal Evergreen	,	No No	Moderate	Establishment Only Establishment Only		High High	Moderate High	Tolerant Tolerant	Low Low	Moderate Moderate	Moderate Moderate	No	
17 Angophora	costata		Native	15 - 20 m	15 - 20 m	Pyramidal Evergreen Spreading Evergreen	50 - 100 years		Low Low	Establishment Only		Moderate	High	Tolerant	High	High	Moderate	No	
18 Angophora	floribunda		Native	15 - 20 m	15 - 20 m	Spreading Evergreen	50 - 100 years		Low	Establishment Only		Moderate	High	Tolerant	High	High	Moderate	No	
19 Arbutus	x andrachnoides	,	Exotic	5 - 10 m	5 - 10 m	Spreading Evergreen	,	No	Moderate	Wide Verge - Optimal Conditions		Moderate	Moderate	Susceptible	Low	Low	Low	No	
20 Arbutus	unedo integrifalia	Irish Strawberry Tree	Exotic	5 - 10 m	5 - 10 m	Spreading Evergreen	,	No	Moderate	Wide Verge - Optimal Conditions		Moderate	Moderate	Susceptible	Low	Low	Low	Yes	
21 Banksia 22 Bauhinia	integrifolia candida	Silver Banksia Orchid Tree	Native Exotic	5 - 10 m 5 - 10 m	< 5 m 5 - 10 m	Fastigiate Evergreen	,	No	Moderate	Establishment Only Wide Verge - Optimal Conditions		Low	Moderate Moderate	Susceptible	Low	Low	Moderate	N0 Voc	
22 Bauninia 23 Bauhinia	canalaa variegata	Orchid Tree	Exotic	5 - 10 m 5 - 10 m	5 - 10 m 5 - 10 m	Spreading Evergreen Spreading Evergreen	,	No No	High High	Wide Verge - Optimal Conditions Wide Verge - Optimal Conditions		Low Low	Moderate	Susceptible Susceptible	Low Low	Low Moderate	Low	Yes Yes	
24 Bauhinia	x blakeana	Hong Kong Orchid Tree	Exotic	5 - 10 m 5 - 10 m	5 - 10 m	Spreading Evergreen	25 - 50 years 25 - 50 years	No	High	Wide Verge - Optimal Conditions		Low	Moderate	Susceptible	Low	Low	Low	Yes	
25 Brachychiton	acerifolius	Illawarra Flame Tree	Native	10 - 15 m	5 - 10 m	Oval / Round Semi - Deciduous	,	No	Low	Water Sensitive Design Solutions		Low	Moderate	Susceptible	Moderate	Moderate	Moderate	No	
26 Brachychiton	populneus	Kurrajong	Native	10 - 15 m	5 - 10 m	Oval / Round Semi - Deciduous	25 - 50 years	No	Low	Establishment Only	Thrips	Low	Moderate	Susceptible	Moderate	Moderate	Moderate	No	
27 Callistemon	citrinus	Lemon Bottlebrush	Native	10 - 15 m	5 - 10 m	Oval / Round Evergreen	25 - 50 years	No	Moderate	Establishment Only		High	High	Tolerant	Low	Low	High	Yes	
28 Callistemon	Harkness	Gawler Hybrid	Native	5 - 10 m	5 - 10 m	Oval / Round Evergreen	25 - 50 years	No	Moderate	Establishment Only		High	High	Tolerant	Low	Low	High	Yes	
29 Callistemon	salignus		Native	5 - 10 m	5 - 10 m	Oval / Round Evergreen		No	Moderate	Establishment Only		High	High	Tolerant	Low	Low	High	No	
30 Callistemon 31 Casuarina	viminalis cunninghamiana	Weeping Bottlebrush Sheoak	Native Native	5 - 10 m 10 - 15 m	5 - 10 m 5 - 10 m	Oval / Round Evergreen Oval / Round Evergreen	,	No No	Moderate Moderate	Establishment Only Establishment Only		High High	High Moderate	Tolerant Tolerant	Low Low	Low Moderate	High Moderate	Yes	┝───┦
32 Celtis	australis	Hackberry	Exotic	10 - 15 m 10 - 15 m	10 - 15 m	Oval / Round Evergreen Spreading Deciduous	25 - 50 years 25 - 50 years	Yes	Low	Establishment Only	Wooly Aphid, White Fly	-	High	Tolerant	High	Moderate	Low	No	
33 Celtis	laevigata	Sugarberry	Exotic	10 - 15 m 10 - 15 m	10 - 15 m 10 - 15 m	Spreading Deciduous		Yes	Low	Establishment Only	Wooly Aphid, White Fly	-	High	Tolerant	High	Moderate	Low	No	
34 Celtis	occidentalis	Common Hackberry	Exotic	10 - 15 m	10 - 15 m	Spreading Deciduous	25 - 50 years	Yes	Low	Establishment Only	Wooly Aphid, White Fly		High	Tolerant	High	Moderate	Low	No	
35 Cercis	canadensis	Redbud	Exotic	< 5 m	< 5 m	Oval / Round Deciduous	25 - 50 years	No	Low	Wide Verge - Optimal Conditions		Low	Moderate	Susceptible	Low	Low	Low	No	
36 Cercis	chinensis	Chinese Redbud	Exotic	< 5 m	< 5 m	Oval / Round Deciduous		No	Low	Wide Verge - Optimal Conditions		Low	Moderate	Susceptible	Low	Low	Low	No	↓]
37 Cercis	siliquastrum	Judas Tree	Exotic	10 - 15 m	5 - 10 m	Oval / Round Deciduous		No	Low	Wide Verge - Optimal Conditions		Low	Moderate	Susceptible	Low	Low	Low	No	┝───┦
38 Corymbia 39 Corymbia	citriodora evimia	lemon Scented Gum	Native	> 20 m	> 20 m	Oval / Round Evergreen	50 - 100 years		Low	Establishment Only Water Sensitive Design Solutions		Moderate	Low	Tolerant	Moderate	High Moderate	Moderate	NO	┝───┦
40 Corymbia	eximia ficifolia	Yellow Bloodwood Western Red Flowering Gum	Native Native	5 - 10 m 5 - 10 m	5 - 10 m 10 - 15 m	Oval / Round Evergreen Spreading Evergreen	,	No Yes	Low Low	Water Sensitive Design Solutions Wide Verge - Optimal Conditions		Low	Moderate Moderate	Susceptible Susceptible	Moderate Moderate	Moderate Moderate	Moderate Moderate	No	├── ┦
40 Corymbia	maculata	Spotted Gum	Native	> 20 m	10 - 13 m 15 - 20 m	Oval / Round Evergreen	50 - 100 years		Low	Establishment Only		Moderate	Low	Tolerant	High	High	Moderate	No	
42 Crataegus	phaenophyrum	Washington Hawthorn	Exotic	5 - 10 m	5 - 10 m	Oval / Round Deciduous	25 - 50 years	No	Low	Water Sensitive Design Solutions		Low	Moderate	Susceptible	Moderate	Moderate	Low	Yes	
43 Cupaniopsis	anacardioides	Tuckeroo	Native	5 - 10 m	5 - 10 m	Oval / Round Evergreen	25 - 50 years	No	Moderate	Water Sensitive Design Solutions		Moderate	Low	Susceptible	Moderate	Moderate	Moderate	No	
44 Eucalyptus	accedens	Powder Bark Wandoo	Native	10 - 15 m	5 - 10 m	Oval / Round Evergreen	25 - 50 years		Low	Establishment Only		Moderate	Moderate	Susceptible	Moderate	Moderate	Moderate	No	
45 Eucalyptus	botryoides	Southern Mahogany	Native	15 - 20 m	10 - 15 m	Oval / Round Evergreen	25 - 50 years		Low	Establishment Only		Moderate	Moderate	Susceptible	Moderate	Moderate	Moderate	No	└─── ┦
46 Eucalyptus	caleyi camaldulansis		Native	15 - 20 m	10 - 15 m	Oval / Round Evergreen		Yes	Low	Wide Verge - Optimal Conditions		Moderate	Moderate	Susceptible	Moderate	Moderate High	Moderate High	NO	┢───┦
47 Eucalyptus 48 Eucalyptus	camaldulensis cinerea	River Red Gum Argyle Apple	Indigenous Native	> 20 m 10 - 15 m	> 20 m 10 - 15 m	Spreading Evergreen Oval / Round Evergreen		Yes Yes	Low Low	Establishment Only Wide Verge - Optimal Conditions	Psylids	High Moderate	Moderate Moderate	Tolerant Susceptible	High Moderate	High Moderate	High Moderate	No	┢───┦
48 Eucalyptus 49 Eucalyptus	cladocalyx	Sugar Gum	Native	> 20 m	> 20 m	Spreading Evergreen		Yes	Low	Establishment Only		High	Moderate	Tolerant	High	High	High	No	┌── ┦
50 Eucalyptus	cneorifolia		Native	5 - 10 m	5 - 10 m	Spreading Evergreen		No	Moderate	Establishment Only		High	Moderate	Susceptible	Moderate	Moderate	Moderate	No	
51 Eucalyptus	coolabah	Coolabah	Native	5 - 10 m	5 - 10 m	Oval / Round Evergreen	25 - 50 years	No	Moderate	Establishment Only		High	Moderate	Susceptible	Moderate	Moderate	Moderate	No	
52 Eucalyptus	cosmophylla	Cup Gum	Native	5 - 10 m	5 - 10 m	Oval / Round Evergreen		No	Low	Establishment Only		High	High	Susceptible	Low	Moderate	High	Yes	
53 Eucalyptus	fasciculosa	Pink Gum	Indigenous	10 - 15 m	10 - 15 m	Oval / Round Evergreen	50 - 100 years		Low	Establishment Only		High	Moderate	Susceptible	Moderate	Moderate	Moderate	No	└─── ┤
54 Eucalyptus	fibrosa forrostiana		Native	15 - 20 m	15 - 20 m	Oval / Round Evergreen		Yes	Low	Establishment Only		Moderate Moderate	Moderate	Susceptible	Moderate	Moderate	Moderate	NO	┝───┦
55 Eucalyptus 56 Eucalyptus	forrestiana gomphocephala	Fuschia Gum Tuart	Native Native	< 5 m 15 - 20 m	< 5 m 15 - 20 m	Oval / Round Evergreen Oval / Round Evergreen		No Yes	Moderate Low	Establishment Only Establishment Only		Moderate Moderate	Moderate Moderate	Susceptible Susceptible	Low Moderate	Low Moderate	Moderate Moderate	No	├── ┦
57 Eucalyptus	goniocalyx	Long leaved box	Native	15 - 20 m 10 - 15 m	10 - 15 m	Oval / Round Evergreen		Yes	Low	Establishment Only		High	Moderate	Susceptible	Moderate	Moderate	High	No	
58 Eucalyptus	largiflorens	Black Box	Native	5 - 10 m	5 - 10 m	Oval / Round Evergreen		No	Low	Water Sensitive Design Solutions		Moderate	Moderate	Susceptible	Moderate	Moderate	Moderate	No	
59 Eucalyptus	leucoxylon	SA Blue Gum	Indigenous	15 - 20 m	15 - 20 m	Oval / Round Evergreen		Yes	Low	Establishment Only		High	Moderate	Tolerant	High	High	High	Yes	
60 Eucalyptus	melliodora	Yellow Box	Native		15 - 20 m	Spreading Evergreen	50 - 100 years	Yes	Low	Establishment Only		Moderate	Moderate	Susceptible	High	High	High	No	
61 Eucalyptus	microcarpa	Grey Box	Indigenous	10 - 15 m	10 - 15 m	Oval / Round Evergreen		Yes	Low	Establishment Only		High	Moderate	Susceptible	Moderate	High	High	No	└─── ┦
62 Eucalyptus	nicholii		Native	10 - 15 m	10 - 15 m	Oval / Round Evergreen		Yes	Low	Wide Verge - Optimal Conditions		Moderate	Moderate	Susceptible	Moderate	Moderate	Moderate	No	┢───┦
63 Eucalyptus 64 Eucalyptus	obliqua odorata	Stringybark Peppermint Box	Native Native	15 - 20 m 5 - 10 m	15 - 20 m 5 - 10 m	Oval / Round Evergreen Oval / Round Evergreen		Yes	Low Moderate	Wide Verge - Optimal Conditions Establishment Only		Moderate High	Moderate Moderate	Susceptible Susceptible	Moderate	Moderate Moderate	High High	NO	┝───┦
65 Eucalyptus	porosa	Peppermint Box Mallee Box	Native	5 - 10 m 5 - 10 m	5 - 10 m 5 - 10 m	Spreading Evergreen		No No	Moderate	Establishment Only		High High	Moderate	Susceptible	Low Low	Moderate	High High	No	├── ┦
66 Eucalyptus	salmonophloia	Salmon Gum	Native	10 - 15 m	10 - 15 m	Oval / Round Evergreen		Yes	Moderate	Establishment Only		High	Moderate	Susceptible	Moderate	Moderate	Moderate	No	
67 Eucalyptus	scoparia		Native	15 - 20 m	15 - 20 m	Oval / Round Evergreen	50 - 100 years		Moderate	Water Sensitive Design Solutions		High	High	Susceptible	Moderate	Moderate	Moderate	No	
	siderophloia	Ironbark	Native	10 - 15 m	10 - 15 m	Oval / Round Evergreen	25 - 50 years	Yes	Moderate	Establishment Only		High	Moderate	Susceptible	Moderate	Moderate	Moderate	No	
68 Eucalyptus			-				l					High	A de el e verte e	Cussontible	Moderate	High	High	No	1 7
68 Eucalyptus69 Eucalyptus	sideroxylon	Red Ironbark	Native	10 - 15 m	10 - 15 m	Oval / Round Evergreen		Yes	Moderate	Establishment Only			Moderate	Susceptible				NO	· · · ·
69 Eucalyptus70 Eucalyptus	sideroxylon torquata	Coral Gum	Native	5 - 10 m	5 - 10 m	Oval / Round Evergreen	25 - 50 years	No	Moderate	Establishment Only		Moderate	High	Susceptible	Moderate	Moderate	Moderate	No	
69 Eucalyptus	sideroxylon						25 - 50 years 25 - 50 years										Moderate High	No No No	

A	B Name & Origin	C	D	E	F	G	H	I J	К	L	M N Risk	0	Р	Q	R	S	T	U
2 6	ents species	Cornerwork	Oriel	Height	with	Form	Every een of	us life topetant porevisit	o Sain Status Statue Status Provin	Management	Perso of Sease Drought and	se svertent	Seearce Tolegare to print	ent spate	Pollution Pollution	ova important	Legislation	overties
73 Fraxinus	ornus	Manna Ash	Exotic	10 - 15 m	10 - 15 m	Oval / Round	Deciduous	25 - 50 years No	Moderate	Establishment Only	High	High	Tolerant	Moderate	Moderate	Low	Yes	
74 Fraxinus	oxycarpa 'Raywoodii'	Claret Ash	Exotic	10 - 15 m	15 - 20 m	Spreading	Deciduous	50 - 100 years Yes	Moderate	Establishment Only	High	High	Tolerant	High	Moderate	Moderate	Yes	↓
75 Fraxinus	pennsylvanica 'Cimmaron'	Cimmaron Ash	Exotic	10 - 15 m	5 - 10 m	Oval / Round	Deciduous	25 - 50 years No	Moderate	Wide Verge - Optimal Conditions	Moderate	Moderate	Susceptible	Moderate	Moderate	Low	No	├─── ┤
76 Geijera 77 Ginkgo	parvifolia biloba	Wilga Maidenhair	Native Exotic	5 - 10 m 10 - 15 m	5 - 10 m 5 - 10 m	Spreading Oval / Round	Evergreen Deciduous	25 - 50 years No 25 - 50 years No	High Moderate	Establishment Only Wide Verge - Optimal Conditions	Low	High Moderate	Susceptible Susceptible	Moderate Moderate	Low Moderate	Moderate	Yes	├ ───┤
78 Gleditsia	triacanthus	Honey Locust	Exotic	10 - 15 m	10 - 15 m	Weeping	Deciduous	25 - 50 years No	High	Establishment Only	High	Moderate	Susceptible	Low	Low	Low	No	<u> </u>
79 Grevillea	robusta	Silky Oak	Native	> 20 m	15 - 20 m	Pyramidal	Evergreen	25 - 50 years Yes	Moderate	Wide Verge - Optimal Conditions	Moderate	Moderate	Susceptible	Moderate	Low	Moderate	No	1
80 Hakea	laurina	Pincushion Hakea	Native	< 5 m	< 5 m	Oval / Round	÷	25 - 50 years No	High	Wide Verge - Optimal Conditions	Moderate	Moderate	Susceptible	Low	Low	High	Yes	11
81 Harpullia	pendula	Tulipwood	Native	5 - 10 m	5 - 10 m	Oval / Round	Evergreen	25 - 50 years No	Moderate	Water Sensitive Design Solutions	Low	Moderate	Susceptible	Moderate	Moderate	Moderate	No	<u> </u>
82 Hymenosporum	n flavum	Native Frangipani	Native	10 - 15 m	5 - 10 m	Pyramidal	Evergreen	< 25 years No	Low	Water Sensitive Design Solutions	Low	Moderate	Susceptible	Low	Low	Low	No	F 1
83 Jacaranda	mimosifolia	Jacaranda	Exotic	10 - 15 m	10 - 15 m	Spreading	Semi - Deciduous	25 - 50 years Yes	Moderate	Establishment Only	Moderate	High	Susceptible	Moderate	Low	Low	No	F 1
84 Koelreuteria	bipinnata	Chinese Flame	Exotic	5 - 10 m	10 - 15 m	Spreading	Deciduous	25 - 50 years No	Moderate	Establishment Only	Moderate	High	Susceptible	Low	Low	Low	No	
85 Koelreuteria	paniculata	Golden Rain	Exotic	5 - 10 m	10 - 15 m	Spreading	Deciduous	25 - 50 years No	Moderate	Establishment Only	Moderate	High	Susceptible	Low	Low	Low	Yes	
86 Lagerstroemia	indica	Crepe Myrtle	Exotic	5 - 10 m	5 - 10 m	Oval / Round	Semi - Deciduous	25 - 50 years No	Moderate	Establishment Only	High	High	Susceptible	Low	Low	Low	Yes	
87 Liquidambar	styraciflua	Sweetgum	Exotic	15 - 20 m	5 - 10 m	Pyramidal	Deciduous	25 - 50 years Yes	Low	Water Sensitive Design Solutions	Low	Moderate	Susceptible	Moderate	Moderate	Low	No	
88 Lophostemon	confertus	Queensland Box	Native	10 - 15 m	10 - 15 m	Oval / Round	Evergreen	25 - 50 years Yes	Low	Wide Verge - Optimal Conditions	Moderate	High	Susceptible	High	Moderate	Low	No	
89 Malus	ioensis	Crab Apple	Exotic	< 5 m	< 5 m	Oval / Round	Deciduous	25 - 50 years No	Low	Wide Verge - Optimal Conditions	Low	Moderate	Susceptible	Low	Low	Moderate	Yes	
90 Melaleuca	styphelioides	Prickly Paperbark	Native	10 - 15 m	5 - 10 m	Oval / Round	Evergreen	25 - 50 years No	Low	Establishment Only	Moderate	High	Susceptible	Moderate	Low	Low	No	
91 Melia	azederach	White Cedar	Native	10 - 15 m	15 - 20 m	Spreading	Deciduous	25 - 50 years Yes	Low	Water Sensitive Design Solutions	Moderate	Moderate	Susceptible	Moderate	Moderate	Moderate	No	
92 Metrosideros	excelsa	New Zealand Christmas Bush	Native	10 - 15 m	5 - 10 m	Pyramidal	Evergreen	25 - 50 years No	Low	Water Sensitive Design Solutions	Low	Moderate	Susceptible	Moderate	Moderate	Low	No	
93 Pinus	canariensis	Canary Island Pine	Exotic	> 20 m	15 - 20 m	Oval / Round	Evergreen	50 - 100 years Yes	Low	Establishment Only	Moderate	Moderate	Susceptible	High	Moderate	Moderate	No	
94 Pinus	pinea	Stone Pine	Exotic	15 - 20 m	15 - 20 m	Spreading	Evergreen	50 - 100 years Yes	Low	Establishment Only	Moderate	Moderate	Susceptible	High	Moderate	Moderate	No	
95 Pistacia	chinensis	Chinese Pistachio	Exotic	5 - 10 m	5 - 10 m	Oval / Round	Deciduous	25 - 50 years No	Moderate	Establishment Only	Moderate	Moderate	Susceptible	Moderate	Moderate	Low	No	
96 Pittosporum	angustifolium	Native Apricot	Native	5 - 10 m	5 - 10 m	Oval / Round	Evergreen	25 - 50 years No	Moderate	Establishment Only	High	Moderate	Susceptible	Low	Low	Moderate	No	
97 Platanus	orientalis	Oriental Plane	Exotic	15 - 20 m	15 - 20 m	Oval / Round	Deciduous	50 - 100 years Yes	Low	Establishment Only	Moderate	Moderate	Tolerant	Moderate	High	Low	No	
98 Platanus	x acerifolia	London Plane	Exotic	> 20 m	> 20 m	Oval / Round	Deciduous	50 - 100 years No	Low	Establishment Only	Moderate	Moderate	Tolerant	Moderate	High	Low	No	
99 Podocarpus	elatus	Brown Pine	Native	5 - 10 m	5 - 10 m	Oval / Round	Evergreen	25 - 50 years No	Moderate	Wide Verge - Optimal Conditions	Low	Moderate	Susceptible	Moderate	Moderate	Moderate	No	\square
100 Prunus	cerasifera Nigra	Black Cherry Plum	Exotic	< 5 m	< 5 m	Oval / Round	Deciduous	25 - 50 years No	Low	Wide Verge - Optimal Conditions	Low	Moderate	Susceptible	Low	Low	Low	Yes	
101 Prunus	dulcis purpurea	Crimson Flowering Almond	Exotic	< 5 m	< 5 m	Oval / Round	Deciduous	25 - 50 years No	Low	Wide Verge - Optimal Conditions	Low	Moderate	Susceptible	Low	Low	Low	No	\square
102 Prunus	elvins	Flowering Plum	Exotic	< 5 m	< 5 m	Oval / Round		25 - 50 years No	Low	Wide Verge - Optimal Conditions	Low	Moderate	Susceptible	Low	Low	Low	Yes	
103 Prunus	serulata	Japanese Cherry	Exotic	< 5 m	< 5 m	Oval / Round	Deciduous	25 - 50 years No	Low	Wide Verge - Optimal Conditions	Low	Moderate	Susceptible	Low	Low	Low	No	
104 Prunus	x blireana	Purple-leafed Plum	Exotic	< 5 m	< 5 m	Oval / Round	Deciduous	25 - 50 years No	Low	Wide Verge - Optimal Conditions	Low	Moderate	Susceptible	Low	Low	Low	No	┣───┤
105 Pyrus	betulaefolia	Southworth Dancer	Exotic	5 - 10 m	5 - 10 m	Oval / Round		25 - 50 years No	Moderate	Establishment Only	High	Moderate	Tolerant	Moderate	Moderate	Low	NO	╂───┤
106 Pyrus	calleryana	Ornamental Pear	Exotic	5 - 10 m	5 - 10 m	Fastigiate		25 - 50 years No	Low	Establishment Only	High	Moderate	Tolerant	Low	Moderate	Low	Yes	Ⅰ ────┤
107 Pyrus	ussuriensis	Manchurian Pear	Exotic	5 - 10 m	5 - 10 m	Spreading	Deciduous	< 25 years No	Moderate	Establishment Only	High	Low	Tolerant	Moderate	Moderate	Low	No	II
108 Quercus 109 Quercus	cerris robur	Turkey Oak English Oak	Exotic Exotic	15 - 20 m 15 - 20 m	10 - 15 m > 20 m	Oval / Round Spreading	Deciduous Deciduous	50 - 100 years Yes 50 - 100 years Yes	Moderate Moderate	Wide Verge - Optimal Conditions Wide Verge - Optimal Conditions	Moderate Moderate	High High	Susceptible Susceptible	High High	High High	Moderate Moderate	No	├───┤
		Ŭ		1		, î		· · ·		Establishment Only		-	· ·	Ű			No	╂────┨
110 Robinia 111 Robinia	pseudoacacia x ambigua	Black locust Purple Robe	Exotic Exotic	10 - 15 m 5 - 10 m	10 - 15 m 5 - 10 m	Oval / Round Oval / Round	Deciduous Deciduous	25 - 50 years No 25 - 50 years No	Moderate Moderate	Water Sensitive Design Solutions	Moderate Moderate	Moderate Moderate	Susceptible Susceptible	Moderate Moderate	Moderate Moderate	Moderate Moderate	No	├───┤
112 Saphora	japonica	Japanese Pagoda	Exotic	1		,		25 - 50 years No	Moderate	Wide Verge - Optimal Conditions	Low	Moderate		Moderate	Moderate	1	No	┣───┤
112 Sapium	sebiferum	Chinese Tallow	Exotic		5 - 10 m	Spreading		25 - 50 years No	Moderate	Water Sensitive Design Solutions	Low	Moderate	Susceptible	Moderate	Moderate	Low	No	┢───┤
114 Syzygium	smithii	Lilly Pilly	Exotic	10 - 15 m	10 - 15 m	, ,		25 - 50 years Yes	High	Wide Verge - Optimal Conditions	Low	Moderate	Susceptible	High	Moderate	Low	No	<u>├</u> ──┤
114 Syzygium 115 Tilia	cordata	Small Leaved Linden	Exotic	10 - 15 m	5 - 10 m	Fastigiate	-	25 - 50 years No	Low	Water Sensitive Design Solutions	Low	Moderate	Susceptible	Moderate	Moderate	Low	No	
116 Tristaniopsis	laurina	Water Gum	Native	5 - 10 m	5 - 10 m	Oval / Round		25 - 50 years No	Low	Wide Verge - Optimal Conditions	Low	Moderate	Susceptible	Moderate	Moderate	Moderate	Yes	
117 Ulmus	parvifolia	Chinese Elm	Exotic	5 - 10 m	10 - 15 m	Spreading		25 - 50 years No	High	Wide Verge - Optimal Conditions	Moderate	Moderate	Susceptible	Moderate	Moderate	Low	No	
118 Waterhousea	floribunda	Weeping Lilly Pilly	Native	10 - 15 m	10 - 15 m	Weeping		25 - 50 years No	High	Water Sensitive Design Solutions	Low	Moderate	Susceptible	Moderate	Moderate	Moderate	No	
119 Zelkova	serrata	Japanese Elm	Exotic		10 - 15 m	Oval / Round	-	25 - 50 years No	Moderate	, , , , , , , , , , , , , , , , , , ,	Elm Leaf Beetle Low	Moderate		Moderate	Moderate	Low	No	
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