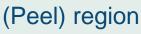
Selecting the right tree

Guide for local governments in the Boorloo (Perth)-Bindjareb







Trees and shrubs are an important part of our built environment, however, if they're not carefully chosen, they may cause problems below ground.

This tree list has been prepared for local governments to guide planting trees on verges and in public open space near Water Corporation assets. The purpose is to minimise the risk of damage to water assets and the loss of trees due to incorrect placement. The guide also encourages selection of waterwise trees that have low watering requirements. It does not address all considerations when selecting tree species and planting locations, such as potential damage to other infrastructure, fire risk and traffic sight-lines.

It is not a guide for residents planting trees in their garden, where there are additional constraints and considerations. Residents are encouraged to visit our <u>Waterwise Plant Directory</u> and refer to their local government for guidelines or requirements when planting trees.

The roots of some trees and shrubs can damage sewer pipes and underground services. Trees and shrubs rely on their roots to find moisture and nutrients. Water and wastewater pipes can be an attractive moisture source.

A small hairline fracture in a pipe is all a root needs to get in. Once inside the pipe the root can grow quickly, causing a reduction in flow and potentially a complete blockage. Often complete sections of pipe need to be replaced which can be expensive.

Suburbs over 20 years old are particularly at risk as they are less likely to have PVC wastewater pipes, which aren't as prone to leakage and tree root damage.

#### Finding the right tree and location

To help local governments in choosing the most appropriate tree or shrub to plant on verges and in public open space we have put together a list of some waterwise options. When making your choice consider waterwise tree species that suits the purpose of the area and consider ongoing maintenance requirements (e.g. deciduous trees will require more maintenance to collect leaves when they fall to keep them out of stormwater drains).

Waterwise trees, once established in improved soil, will need watering no more than once to twice a week. Many of these trees will flourish over the long, hot summer months with only the bare minimum of water. Trees that are waterwise have been labelled in the following tables. To learn more about the best waterwise plants for your site, visit our Waterwise Plant Directory.

Verges serve as a corridor for utilities with a number of water, electrical, gas and telecommunication pipes located underground within them. Prior to planting a verge tree, local governments must contact <u>Before You Dig Australia</u> to make sure underground assets won't be damaged or interfered with. All trees must be planted in accordance with the Utility Providers Code of Practice Western Australia, which states that trees must be planted 2.7m from the property boundary line and minimum of 0.5m from water assets.

Please also refer to Western Power's <u>Clearance Zones</u> for safe distances between trees and overhead powerlines. For local governments planting medium and large street trees (mature height over 5m), please see guidance for <u>Working near Water Corporation assets</u> and seek <u>approval for works</u> if working within 10m of our assets. We will work with you to ensure the longevity of the tree and to minimise the possibility of interruption to local residents' water supplies.

Any damage to, or interference with, a Water Corporation underground asset may result in Water Corporation imposing fines or seeking damages for any repair.

#### Waterwise tree list

These lists are intended to be used as a guide to assist local government planting trees or shrubs on verges and in public open space. As stated above in 'Finding the right tree and location', please take care when planting any trees and shrubs as local governments may be liable to pay a fine or the costs of repair if there is any damage to an underground asset as a result. The below tree list has been scored on its water rating and level of root invasiveness by specialist tree consultants. For any enquires on the below tree list, please contact us at wepartnerships@watercorporation.com.au

#### Water rating:

- 0 Once established will require no supplementary watering
- 1 Once established requires watering once a week
- 2 Once established requires watering twice a week

#### **Root invasiveness:**

Low

The species is not recognised for displaying vigorous root development and is not commonly associated with damage to pipes.

#### Moderate

The species may be recognised for causing some damage to pipes. Tree species are more likely to originate in more temperate climates than the Perth region and to have a higher requirement for water.

#### High

These species are recognised more widely for the vigour of their root development. Trees within this category have not generally been recommended for planting near pipes and may be included within a list of trees considered unsuitable for verge or urban garden planting.

#### Flowering type:

Showy/ornamental

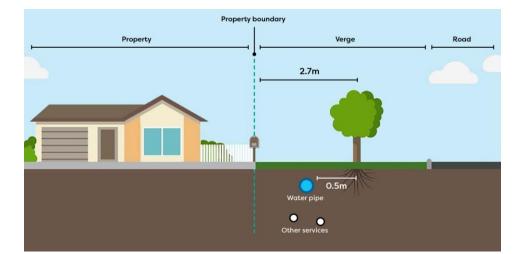
Trees have large flowers or voluminous displays of flowers.

#### Inconspicuous/small

Trees have flowers, however these may be small, sparse, or not ornamental.

#### No flowers

Tree does not have flowers.





# Suitable for planting in verges (small)

Tree size	Waterwise drop rating	Common name	Botanical Name	Origin	Deciduous or Evergreen	Root invasiveness	Flowering type
Small (4-8m)	1	Bald Island Marlock	Eucalyptus conferruminata	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	0	Beard's Mallee	Eucalyptus beardiana	WA Native	Evergreen	Low	Inconspicuous/small
Small (4-8m)	1	Bell Fruited Mallee	Eucalyptus preissiana	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	1	Brachychiton 'Belladonna'	Brachychiton acerifolia x populneus	Aus Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	1	Burgundy Weeping Peppermint	Agonis flexuosa 'Burgundy'	WA Native	Evergreen	Low	Inconspicuous/small
Small (4-8m)	1	Cottonwood Hibiscus	Hibiscus tileaceus	Aus Native	Evergreen	Moderate	Showy/ornamental
Small (4-8m)	2	Crape Myrtle	Lagerstroemia indica	Exotic	Deciduous	Low	Showy/ornamental
Small (4-8m)	1	Crimson mallee	Eucalyptus lansdowneana	Aus Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	1	Cut-Leaf Banksia	Banksia praemorsa	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	2	Dawson River Weeper	Callistemon 'Dawson River'	Aus Native	Evergreen	Moderate	Showy/ornamental
Small (4-8m)	0	Desmond Mallee	Eucalyptus desmondensis	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	0	Drummond's Mallee	Eucalyptus drummondii	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	1	Dwarf Yellow	Corymbia eximia 'Nana'	Aus Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	1	Euky Dwarf	Eucalyptus leucoxylon 'Euky	Aus Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	0	Firewood Banksia	Banksia menziesii	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	0	Fremantle Mallee	Eucalyptus foecunda	WA Native	Evergreen	Low	Inconspicuous/small
Small (4-8m)	0	Fuchsia Mallee	Eucalyptus forrestiana	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	1	Gumbi Gumbi/Weeping Pittosporum	gPittosporum angustifolium	WA Native	Evergreen	Low	Inconspicuous/small
Small (4-8m)	1	Hybrid Coral Gum	Eucalyptus 'Torwood'	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	0	Illyarrie	Eucalyptus erythrocorys	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	0	Kings Park Special	Callistemon 'Kings Park Special'	WA Native	Evergreen	Moderate	Showy/ornamental
Small (4-8m)	0	Mottlecah	Eucalyptus macrocarpa	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	2	New Zealand Christmas	Metrosideros thomasii	Exotic	Evergreen	Moderate	Showy/ornamental
Small (4-8m)	2	Ornamental Plum	Prunus blireana varieties	Exotic	Deciduous	Low	Inconspicuous/small
Small (4-8m)	0	Pear fruited Mallee	Eucalyptus pyriformis	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	2	Persion Ironwood	Parrotia persica	Exotic	Deciduous	Moderate	Inconspicuous/small
Small (4-8m)	1	Pin-Cushion Hakea	Hakea laurina	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	2	Purple Leafed Ornamental Plum	Prunus cerasifera varieties	Exotic	Deciduous	Low	Inconspicuous/small
Small (4-8m)	0	Red Flowered Mallee	Eucalyptus erythronema	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	1	Red-Flowered Moort	Eucalyptus nutans	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	1	River Yate	Eucalyptus macrandra	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	0	Rose Mallee	Eucalyptus rhodantha	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	0	Round-Leaved Mallee	Eucalyptus orbifolia	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	1	Saltwater Paperbark	Melaleuca cuticularis	WA Native	Evergreen	Moderate	Inconspicuous/small
Small (4-8m)	0	Sandplain Woody Pea	r Xylomelum angustifolium	WA Native	Evergreen	Low	Inconspicuous/small
Small (4-8m)	0	Tallerack	Eucalyptus pleurocarpa	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	0	Webster's Mallee	Eucalyptus websteriana	WA Native	Evergreen	Low	Showy/ornamental
Small (4-8m)	1	Weeping bottlebrush	Callistemon viminallis	Aus Native	Evergreen	Moderate	Showy/ornamental
Small (4-8m)	1	Western Tea Myrtle	Melaleuca nesophila	WA Native	Evergreen	Moderate	Showy/ornamental
Small (4-8m)	0	Jingymia Mallee	Eucalyptus rosacea	WA Native	Evergreen	Low	Showy/ornamental



## Suitable for planting in verges (medium and large)

Tree size	Waterwise drop rating	Common name	Botanical Name	Origin	Deciduous or Evergreen	Root invasiveness	Flowering type
Medium (8-16m)	1	Wilga/ Australian Willow	Geijera parviflora	Aus Native	Evergreen	Moderate	Inconspicuous/small
Medium (8-16m)	1	Argyle Apple	Eucalyptus cinerea	Aus Native	Evergreen	Low	Inconspicuous/small
Medium (8-16m)	0	Bull Banksia	Banksia grandis	WA Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	1	Chinese Pistachio	Pistacia chinensis	Exotic	Deciduous	Low	Showy/ornamental
Medium (8-16m)	1	Claret Ash	Fraxinus 'Raywoodii'	Exotic	Deciduous	Moderate	Inconspicuous/small
Medium (8-16m)	0	Coastal Moort	Eucalyptus utilis	WA Native	Evergreen	Low	Inconspicuous/small
Medium (8-16m)	0	Coral Gum	Eucalyptus torquata	WA Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	2	Evergreen Ash	Fraxinus griffithii	Exotic	Evergreen	Low	Inconspicuous/small
Medium (8-16m)	0	Gungurru	Eucalyptus caesia ssp caesia	WA Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	0	Holly Leaved Banksia	Banksia ilicifolia	WA Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	2	Irish Strawberry tree	Arbutus unedo	Exotic	Evergreen	Moderate	Inconspicuous/small
Medium (8-16m)	0	Jam Wattle	Acacia acuminata	WA Native	Evergreen	Moderate	Showy/ornamental
Medium (8-16m)	0	Large Fruited Mallee	Eucalyptus youngiana	WA Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	1	Lemon Flowered Gum	Eucalyptus woodwardii	WA Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	2	Lilly Pilly	Acmena smithii	Aus Native	Evergreen	Moderate	Inconspicuous/small
Medium (8-16m)	2	Manchurian Pear	Pyrus ussuriensis	Exotic	Deciduous	Low	Inconspicuous/small
Medium (8-16m)	0	Moort	Eucalyptus platypus	WA Native	Evergreen	Moderate	Showy/ornamental
Medium (8-16m)	0	Olive	Olea europa	Exotic	Evergreen	Moderate	Inconspicuous/small
Medium (8-16m)	1	Red Flowering Broadleaved Paperbark	Melaleuca viridiflora	Aus Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	1	Rock Sheoak	Allocasuarina huegeliana	WA Native	Evergreen	Moderate	Inconspicuous/small
Medium (8-16m)	1	SA Yellow Gum	Eucalyptus leucoxylon sub species megalocarpa	Aus Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	0	Salmon White Gum	Eucalyptus lane-poolei	WA Native	Evergreen	Low	Inconspicuous/small
Medium (8-16m)	1	Sea Urchin Hakea	Hakea petiolaris	WA Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	0	Silver Mallee	Eucalyptus crucis	WA Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	0	Silver Princess	Eucalyptus caesia ssp magna	WA Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	1	Snow-in-Summer	Melaleuca linariifolia	Aus Native	Evergreen	Moderate	Showy/ornamental
Medium (8-16m)	0	Strickland's Gum	Eucalyptus stricklandii	WA Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	0	Swamp Banksia	Banksia littoralis	WA Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	1	Swamp Mallet	Eucalyptus spathulata	WA Native	Evergreen	Moderate	Inconspicuous/small
Medium (8-16m)	0	Tuckeroo	Cupaniopsis anacardioides	Aus Native	Evergreen	Moderate	Inconspicuous/small
Medium (8-16m)	2	Water Gum	Tristaniopsis laurina	Aus Native	Evergreen	Moderate	Inconspicuous/small
Medium (8-16m)	0	Western Coolabah	Eucalyptus victrix	WA Native	Evergreen	Low	Showy/ornamental
Medium (8-16m)	1	Willow Bottlebrush	Callistemon salignus	Aus Native	Evergreen	Moderate	Showy/ornamental
Medium (8-16m)	1	Yellow Gum	Eucalyptus leucoxylon 'Rosea'	Aus Native	Evergreen	Moderate	Showy/ornamental
Large (16m+)	0	Coast Banksia	Banksia integrifolia	Aus Native	Evergreen	Moderate	Showy/ornamental
Large (16m+)	2	Flowering Ash	Fraxinus ornus	Exotic	Deciduous	Moderate	Inconspicuous/small
Large (16m+)	1	Jacaranda	Jacaranda mimosifolia	Exotic	Deciduous	Moderate	Showy/ornamental
Large (16m+)	1	Lacebark Kurrajong	Brachychiton discolour	Aus Native	Deciduous	Low	Showy/ornamental
Large (16m+)	1	Queensland Firewheel Tree		Aus Native	Evergreen	Low	Showy/ornamental
Large (16m+)	0	River Banksia	Banksia seminuda	WA Native	Evergreen	Moderate	Showy/ornamental
Large (16m+)	1	Rough Barked Apple Gum	Angophora floribunda	Aus Native	Evergreen	Moderate	Inconspicuous/small
Large (16m+)	2	Weeping Broadleaved Paperbark	Melaleuca leucadendra	WA Native	Evergreen	Moderate	Inconspicuous/small



### Suitable for planting in public open space

Tree size	Waterwise drop rating	Common name	Botanical Name	Origin	Deciduous or Evergreen	Root invasiveness	Flowering type
Small (4-8m)	2	Cape Leeuwin Wattle	Paraserianthes lophantha	WA Native	Evergreen	Moderate	Showy/ornamental
Small (4-8m)	2	Native Frangipani	Hymenosporum flavum	Aus Native	Evergreen	High	Showy/ornamental
Small (4-8m)	1	Rottnest Island Tea-Tree	Melaleuca lanceolata	WA Native	Evergreen	Moderate	Inconspicuous/small
Medium (8-16m)	2	Australian Teak	Flindersia australis	Aus Native	Evergreen	Moderate	Inconspicuous/small
Medium (8-16m)	2	Chinese Elm	Ulmus parvifolia	Exotic	Deciduous	Moderate	Inconspicuous/small
Medium (8-16m)	0	Coastal Blackbutt	Eucalyptus todtiana	WA Native	Evergreen	Low	Inconspicuous/small
Medium (8-16m)	0	Common Sheaok	Allocasuarina fraseriana	WA Native	Evergreen	High	Inconspicuous/small
Medium (8-16m)	2	Judas Tree	Cercis siliquastrum	Exotic	Deciduous	Moderate	Showy/ornamental
Medium (8-16m)	0	Kurrajong	Brachychiton populneus	Aus Native	Evergreen	High	Showy/ornamental
Medium (8-16m)	0	Power-bark Wandoo	Eucalyptus accedens	WA Native	Evergreen	Moderate	Inconspicuous/small
Medium (8-16m)	1	Redheart Moit	Eucalyptus decipiens	WA Native	Evergreen	Low	Inconspicuous/small
Medium (8-16m)	0	Rottnest Island Cypress	Callitris preissii	WA Native	Evergreen	Low	No Flowers
Medium (8-16m)	0	WA Weeping Peppermint	Agonis flexuosa	WA Native	Evergreen	Moderate	Inconspicuous/small
Medium (8-16m)	1	Water Gum	Eucalyptus petiolaris	Aus Native	Evergreen	Moderate	Inconspicuous/small
Medium (8-16m)	1	Wild Plum/ Kaffir Plum	Harpephyllum caffrum	Exotic	Evergreen	Moderate	Inconspicuous/small
Large (16m+)	1	Blackbutt	Eucalyptus patens	WA Native	Evergreen	Moderate	Inconspicuous/small
Large (16m+)	1	Cape Chestnut	Calodendron capense	Exotic	Deciduous	Moderate	Showy/ornamental
Large (16m+)	1	Cork Oak	Quercus suber	Exotic	Evergreen	Moderate	Inconspicuous/small
Large (16m+)	0	Darling Range Ghost Gum	Eucalyptus laeliae	WA Native	Evergreen	Low	Inconspicuous/small
Large (16m+)	2	Holly Leaf Oak	Quercus ilex	Exotic	Evergreen	Moderate	Inconspicuous/small
Large (16m+)	2	Illawarra Plum	Podocarpus elatus	Aus Native	Evergreen	Moderate	No Flowers
Large (16m+)	1	Iron Bark	Eucalyptus sideroxylon	Aus Native	Evergreen	Moderate	Showy/ornamental
Large (16m+)	0	Jarrah	Eucalyptus marginata	WA Native	Evergreen	Moderate	Inconspicuous/small
Large (16m+)	1	Narrow-leaved Peppermint	Eucalyptus nicholii	Aus Native	Evergreen	Moderate	Inconspicuous/small
Large (16m+)	2	NZ Christmas tree	Metrosideros excelsa	Exotic	Evergreen	High	Showy/ornamental
Large (16m+)	2	Oriental Pane tree	Platanus orientalis	Exotic	Deciduous	Moderate	Inconspicuous/small
Large (16m+)	1	Red Box	Eucalyptus polyanthemos	Aus Native	Evergreen	Moderate	Inconspicuous/small
Large (16m+)	2	Red Oak	Quercus rubra	Exotic	Deciduous	Moderate	Inconspicuous/small
Large (16m+)	1	Rose She-oak	Casuarina torulosa	Aus Native	Evergreen	Moderate	Inconspicuous/small
Large (16m+)	1	Spotted Gum	Corymbia maculata	Aus Native	Evergreen	Moderate	Inconspicuous/small
Large (16m+)	1	Sydney Red Gum	Angophora costata	Aus Native	Evergreen	Moderate	Inconspicuous/small
Large (16m+)	1	Tuart	Eucalyptus gomphocephala	WA Native	Evergreen	Moderate	Inconspicuous/small
Large (16m+)	0	Wandoo	Eucalyptus wandoo	WA Native	Evergreen	Moderate	Inconspicuous/small
Large (16m+)	0	Yellow Bloodwood	Corymbia eximia	Aus Native	Evergreen	Moderate	Showy/ornamental



#### These trees are not recommended

Common name	Botanical Name
American Sweetgum	Liquidambar styraciflua
Box Elder	Acer negundo
Broadleaved Paperbark	Melaleuca quinquenervia
Cook Pine	Araucaria columnaris
Cypress Pine	Cupressus species
English Oak	Quercus robur
Golden Ash	Fraxinus aurea
Hackberry	Celtis mississippiensis
Honey Locust	Gleditsia triacanthos
Lemon-scented Gum	Corymbia citriodora
Moreton Bay Fig	Ficus macrophylla
Norfolk Island Hibiscus	Lagunaria patersonia
Norfolk Island Pine	Araucaria heterophylla
Northern River Red Gum	Eucalyptus camaldulensis var. obtusa
Norway Maple	Acer platanoides
Port Jackson fig	Ficus rubiginosa
Queensland Box	Lophostemon confertus
Red Maple	Acer rubrum
River Sheoak	Casuarina cunninghamiana
Rosewood	Tipuana tipu
Rubber tree	Ficus elastica
Small Leaf Fig	Ficus microcarpa
Tupelo	Nyssa sylvatica 'Tupelo'
Water Oak	Quercus nigra

Please also refer to the <u>Department of Primary Industries and Regional Development's</u> current data on susceptible tree species and known hosts of Polyphagous shot-hole borer (PSHB). Avoid planting tree species that are known reproductive hosts of PSHB.

#### Release of liability

By using the waterwise tree list, you agree to release, waive, and hold harmless the Water Corporation, its employees, agents, and affiliates from all claims, damages, losses, liabilities, or expenses arising out of or related to:

- 1. your use of or reliance on the waterwise tree list;
- 2. the selection, planning, or maintenance of any tree on your property or site; and
- 3. any property damage, personal injury, or environmental impact resulting from your tree selection or planting choices.

For more information please contact:

wepartnerships@watercorporation.com.au

**13 13 85** Account enquiries (8am - 5pm weekdays)

13 13 75 Faults, Emergencies and Security (24 hours)

