

How to create a waterwise verge

Guidance for householders



What is a verge?

A verge is the strip of land between the road and the property boundary. Verges form important green spaces within our community and serve as an area of public shared space, necessary for access and services including utilities, crossovers, street trees and footpaths.

Verges traditionally consist of a combination of footpath, grass and a street tree or are covered in concrete from the kerb to the boundary line, however the inclusion of low water use plants and a variety of approved alternative treatments has increased as residents move towards creating verge gardens.

Why create a waterwise verge?

Verges are often undervalued green spaces and a waterwise verge can help to cool temperatures while creating wildlife friendly corridors through our streets.

Benefits of a well-designed, installed and maintained waterwise verge include:

- Improved water efficiency and increased stormwater infiltration.
- Creating a cooling effect and mitigation of 'urban heat' in summer.
- Providing habitat for local wildlife and increased biodiversity.
- Providing opportunities for local food production.
- Improving streetscape amenity and potentially increasing property prices.

Establishing low water use plants on verges is gaining popularity due to recognition of the environmental and cost saving benefits. We've put together this step-by-step guide to assist in creating a waterwise verge.



STEP 1

Understand your local council requirements



Before creating your waterwise verge, it's important to understand the requirements of your local council.

Most will provide a set of guidelines, detailing what is and isn't allowed as well as providing useful information, such as local native plant species and incentive schemes.

It's essential to confirm any underground services in your verge. Contact your local council and visit the 'Dial Before You Dig' website www.1100.com.au

STEP 2

Designing your verge



Find inspiration

Get ideas and motivation by looking through garden magazines and websites.

Our website has valuable information on waterwise gardening, including garden designs and plant selection. It also provides waterwise advice, including where to find specialists that can help with the development of your waterwise verge www.watercorporation.com.au/waterwise

Streetscape consistency

Consider how your surrounding neighbours have treated their verges.

If a neighbour's garden is thriving and meets your local council's verge guidelines, consider adopting a similar design and plant types as this will enhance the look of the street.

Visit www.watercorporation.com.au/garden for more information.

Draw up a plan

Get your tape measure and draw an accurate scaled plan identifying all existing features (e.g. street trees and light poles) and their dimensions. This will help to understand how you can arrange your verge and what can fit in.

Consider the style of verge garden you want to create, such as native, cottage, coastal or formal.

Think about how your verge is currently used, for example by pedestrians, bin collection, mail delivery and utilities, and how your new design will cater for this mixed use.

The plan can also be submitted to your local council if approval is required.

Accessibility

Think about the pathways on your verge that are regularly accessed for mail delivery or pedestrians. If your verge has a bus stop or school pick up zone, you may need to work closely with your local council for an appropriate design that can handle a lot of traffic.

Plants should be set back from kerbs or footpaths by 0.5m to ensure plants don't impede pedestrians.

If you don't have a footpath, all plants must be set back at least 1.5m from the kerb to allow pedestrian movement and access to vehicles parked on the road. This area may also be used for rubbish bins or bulk/green waste during collection periods. Refer to your local council guidelines for more information.

Utilities and infrastructure

Verges serve as a corridor for utilities with a number of water, electrical, gas and telecommunication alignments located underground within these areas.

Utility providers have a right to dig up verges to gain access to their alignment for new services, and to upgrade or repair existing services. Whilst utilities and their contractors will try to minimise disruption, rectification of verge treatments following any work can be the responsibility of the resident.

Consider the positioning of any utility assets e.g. water meters when planning the verge garden to ensure assets are unobstructed and safely accessible for reading and maintenance. This can be achieved by:

- not planting new plants and shrubs directly next to utility assets.
- keeping surrounding plants trimmed.
- clearing excess sand and mulch.

Note. The water meter should be clear 30cm around every side and have at least 120cm of open air above. Visit www.watercorporation.com.au/clearmeters for further information.

Consider low growing, non-climbing plant species around streetlights, power poles and street signage. Councils often use cherry pickers to prune trees so consider hardier plant types if your plants are regularly pruned.

Parking spaces can be cleverly designed within verges, depending on the size. Your local council will need to approve any formal parking spaces to ensure it is safe.

Suitable verge treatments and structures

Soft landscape treatments including waterwise plants and mulch are recommended.

Generally, councils don't allow loose rocks or gravel within verge gardens due to safety concerns. Structures or ornamental elements, including play equipment, tree houses and garden sculptures, should not be included due to potential public liability issues.

Some alternative forms of treatment, such as paving, raised garden beds and kerbing may be permitted. Check your council's guidelines for more information.



STEP 3 Selecting your plants



Understanding your verge

Think about the existing conditions of your verge, such as soil type and sun exposure.

Local native plant species are the most appropriate for verge gardens as they can survive our hot dry summers with little to no additional watering.

Some councils work with local nurseries to provide native plants at a subsidised rate. Councils may also have brochures to help residents in selecting suitable species.

Find out more about plant selection at our Waterwise plants directory at www.watercorporation.com.au/plants or head down to your local Waterwise Garden Centre. Find your local one at www.watercorporation.com.au/waterwise/waterwise-specialists

Check the plant height

Low growing shrubs and groundcovers are the best option for verges as it provides better visibility for pedestrians, cyclists and vehicles. There may be council rules on heights of plants, which generally are between 0.5m-0.7m. This height may be even lower if your property is located on a street corner or major intersection.

Plants to avoid

Steer clear of plants that are prickly, poisonous or may cause allergic reactions, and check the root invasiveness of waterwise plants.

The roots of some trees and shrubs can damage wastewater and drainage pipes and other underground services. Trees and shrubs rely on their roots to find moisture and nutrients. These pipes are an attractive moisture source. A small hairline fracture in a pipe is all a root needs to get in. Then it quickly grows inside the pipe, causing a reduction in flow and eventually a complete blockage. Often complete sections of pipe need to be replaced and this is costly. This can affect both utility pipes and internal plumbing.

To help select trees or shrubs that have a suitable root system for verges, visit www.watercorporation.com.au/help-and-advice/designing-a-waterwise-garden/selecting-the-right-tree/selecting-the-right-tree

Street trees

If you want to plant a tree or have one removed, you will need to contact your local council. They are responsible for the planting and maintenance of trees within all verges as they are aware of all underground services and current regulations regarding sightlines and setbacks from intersections.

Lawn

If you want lawn on your verge, you may like to consider reducing the area, such as along the kerb for bins or people getting out of cars.

Choose a warm season grass that is drought tolerant and suitable for our warm conditions. Although some councils allow synthetic turf it's important to note that synthetic turf still requires maintenance to present well and doesn't have the cooling effect of natural turf or plants.

STEP 4 Approvals

Strata properties

If you live in a strata property you'll need to get joint approval from strata owners and managers before starting. Careful consideration should also be given to any irrigation system that is installed and how the verge is going to be managed.

Council approval

Some councils require you to submit your verge design for approval prior to undertaking a verge transformation. Check your local guidelines and ensure you have the required permissions before commencing.

STEP 5 Preparing your verge

Removing existing grass

Removal of unwanted lawn is crucial to the success of a waterwise verge garden to prevent competition with new plantings.

Some perennial grasses such as buffalo and kikuyu can be removed manually but couch grass typically needs to be killed by herbicide spraying. Attempting methods such as smothering with mulch or covering with plastic is unlikely to be successful.

When using herbicides always apply as directed on the pack, including follow up treatments as required, or consider hiring a licensed contractor.

Levels

Set the verge ground levels at least 7.5cm below surrounding kerbs and paths to allow for mulch on top and ensure finished levels are only slightly below paths or kerbs.

Make sure levels allow for stormwater to be held within your verge, rather than impacting nearby street stormwater drains.

If you have a verge with steep slopes, you may need to consider alternative treatments so soils and mulches don't wash into the stormwater system and drains. It's best to contact your local council about stabilising your verge in line with their guidelines.

Improving the soil

If you are including local native species, consider applying a quality soil wetting agent during establishment to increase the soils 'wettability', allowing water to penetrate deep into the root zone.

Alternatively, if you are intending to use a broad range of exotic and native plants, or are irrigating your verge, incorporating soil conditioners, like well composted organic matter and clay-based additives, within the top 30cm of soil can assist in maintaining microbial activity and improve soil moisture and nutrient holding capacity.

Which products are best?

If sourcing bagged soil conditioner or wetting agents, you can select Waterwise or Smart Approved WaterMark Products. Refer to the manufacturer's instructions for application rates.

Visit www.watercorporation.com.au/waterwise for more information.

STEP 6 Irrigation and watering



Irrigation system

You should contact a Waterwise Specialist to help designing and installing an irrigation system that will best suit your plant selection and verge conditions. Visit www.watercorporation.com.au/waterwise

Watering times

Our watering rosters help to save precious water. It's important to only water once on your watering days between 6pm and 9am. Visit www.watercorporation.com.au/wateringdays to find yours.

Watering exemptions

If you're installing a new verge garden you may be able to apply for a watering exemption to assist with establishment. Visit www.watercorporation.com.au/help-and-advice/watering-days/apply-for-a-watering-exemption/apply-for-a-watering-exemption for further information.

Hand watering

If you haven't installed irrigation, your plants may benefit from occasional hand watering over the summer period to ensure that they survive until the next rainfall event.

STEP 7 It's planting time!

When to plant

The best time to plant is late autumn/early winter, as rainfall through the cooler winter months will help to establish your new garden without additional watering. Avoid planting over the summer months as new plants will

struggle to survive in the heat without regular watering.

Plant set out

Before digging any holes, set out your plants along the verge to ensure the design is correct and the spacing between plants is even. Consider the growth of plants so they don't obstruct access routes or public infrastructure as they grow.

Mulch application

Once all plants have been installed, apply a 5-10cm thick even layer of coarse mulch, making sure mulch is kept clear from the base of all new plants. Ensure the finished mulch level sits just below adjoining kerbs and footpaths, to prevent mulch from spreading beyond the garden bed.

STEP 8 Maintaining your waterwise verge

Pruning and fertilising

Native verge gardens should only require occasional weeding and pruning. You may wish to prune more frequently to maintain a formal verge design. Your garden may benefit from a light application of controlled release fertiliser once a year. Ensure you select one appropriate for your plant selection.

Mulch

Check mulch every few months and top up as necessary to maintain a 5-10cm even layer across all planting areas.

Street tree maintenance

All maintenance to trees on the street, including pruning, must be undertaken by the council. Residents should contact the council if they think their verge tree needs attention.

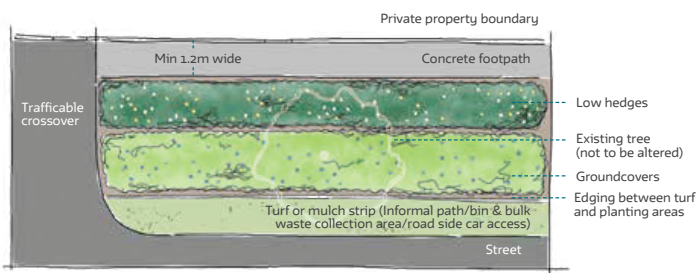


Formal verge design

Planting colour scheme: Grey, blue, yellow and white

Suitable for traditional houses, this design organises plants neatly and creates a hierarchy from road to residential boundary. It incorporates a narrow strip of turf or mulch along the road, which can be used as an informal path, a bin and bulk waste collection area, and for easy road side car access.

If you do wish to lay turf, carefully consider the irrigation you install, such as specialty nozzles or sub surface drip irrigation to prevent overcasting. It's recommended, in keeping with the structured design of this verge, that only one or two plant varieties be chosen for each planting area.



Plant types

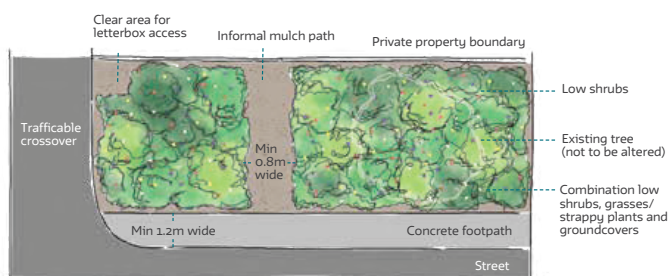
Common name	Botanical name
Groundcovers	
Southern Blechnum Banksia	<i>Banksia blechnifolia</i> *
Darwinia (Prostrate Form)	<i>Darwinia grandiflora</i> *
Purple Fanfare	<i>Scaevola aemula</i> *
Shrubs	
Blue Hibiscus	<i>Alyogyne huegelii</i> *
Diosma	<i>Coleonema pulchellum</i>
Crowea	<i>Crowea exalata</i>
Cotton Lavender	<i>Santolina chamaecyparissus</i>
Salvia 'Electric Blue'	<i>Salvia sinaloensis</i>
Grasses/strappy leaf plants	
Dwarf Agapantha	<i>Agapanthus praecox</i>
NZ Rock Lily	<i>Arthropodium cirratum</i>
Lilyturf	<i>Liriope muscari</i>

* These species are endemic to WA

Informal verge design

Planting colour scheme: Mixed

This design is suitable for residents who wish to create an informal, cottage style verge landscape. It includes a combination of low shrubs, grasses/strappy plants and groundcover. We recommend that plant varieties be planted in groups of three or five, so as not to look messy. Use mulch to create an informal pathway and ensure your letterbox is still easily accessible through the vegetation.



Plant types

Common name	Botanical name
Groundcovers	
Southern Blechnum	<i>Banksia blechnifolia</i> *
Banksia	
Dampiera	<i>Dampiera diversifolia</i> *
Mondorup Bell	<i>Darwinia macrostegia</i> *
Grevillea 'Star Burst'	<i>Grevillea saccata</i> *
Grevillea tenuiloba	<i>Grevillea tenuiloba</i> *
Shrubs	
Dwarf Agonis	<i>Agonis flexuosa</i> *
Native Hibiscus	<i>Alyogyne hakeifolia</i> *
Bottlebrush 'Little John'	<i>Callistemon viminalis</i>
Egg and Bacon Plant	<i>Eutaxia myrtifolia</i> *
Chenille Honey Myrtle	<i>Melaleuca huegelii</i> *
Grasses/strappy leaf plants	
Kangaroo Paw	<i>Anigozanthos manglesii</i> *
Native Iris or Purple Flag	<i>Pattersonia occidentalis</i> *

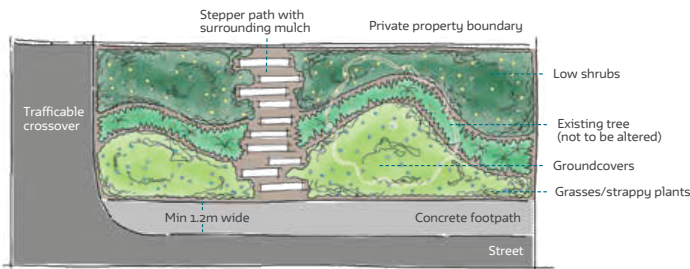
* These species are endemic to WA



Coastal verge design

Planting colour scheme: Predominantly grey, yellow and blue

Suitable for relaxed, coastal houses, this design features a band of grasses/strappy plants, which divides low shrubs and groundcovers across the face of the verge. It includes a casual stepper path, surrounded by mulch. If you choose to plant a variety of species, we recommend you do so in groups of three or five, to maintain structure.



Plant types

Common name	Botanical name
Groundcovers	
Snow in Summer	<i>Cerastium tomentosum</i>
Red Lechenaultia	<i>Lechenaultia hirsuta</i> *
Blue Lechenaultia	<i>Lechenaultia biloba</i> *
Shrubs	
Blue Smoke Bush (prostate form)	<i>Conospermum caeruleum</i> *
Wormwood	<i>Artemisia absinthium</i>
Pride of Madeira	<i>Echium candicans</i>
Upside-down Bush	<i>Leptosema davesioides</i>
Salvia 'Crimson and Black'	<i>Salvia greggi</i>
Salvia 'Electric Blue'	<i>Salvia sinoensis</i>
Grasses/strappy leaf plants	
Mexican Lily	<i>Beschorneria yuccoides</i>
Devon Skies	<i>Sisyrinchium 'Devon Skies'</i> *

* These species are endemic to WA

Contemporary verge design

Planting colour scheme: Bold yellow, purple and grey

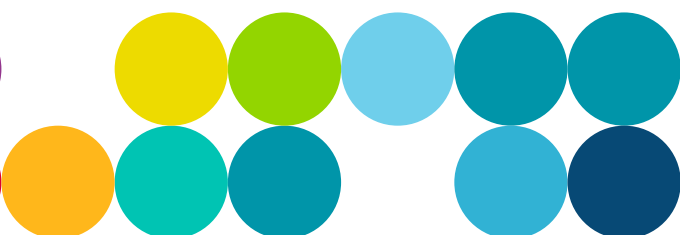
This design is suitable for residents looking to complement a more modern house. Although organic in shape, each of the planting areas should have a clearly defined edge. As there is no concrete footpath along this verge, all planting must be set back a minimum 1.5m from the road. This area has been left as mulch, creating an informal path, a bin and bulk waste collection area, and easy road side car access for residents.



Plant types

Common name	Botanical name
Groundcovers	
Southern Blechnum	<i>Banksia blechnifolia</i> *
Banksia	
Dampiera	<i>Dampiera diversifolia</i> *
Mondorup Bell	<i>Darwinia macrostegia</i> *
Grevillea 'Star Burst'	<i>Grevillea saccata</i> *
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Dwarf Agonis	<i>Agonis flexuosa</i> *
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Chenille Honey Myrtle	<i>Melaleuca huegelii</i> *
Grasses/strappy leaf plants	
Kangaroo Paw	<i>Anigozanthos manglesii</i> *
Native Iris or Purple Flag	<i>Pattersonia occidentalis</i> *

* These species are endemic to WA



Cheat sheet

STEP 1

Understand your local council requirements

- Most councils have verge guidelines of what is and isn't allowed.
- There are also verge incentive schemes that you may be able to apply for.

STEP 2

Design your verge

- Create a plan.
- Think about what's already on your verge, such as street lights, signs, bus stops and paths.

STEP 3

Select your plants

- Consider existing conditions of your verge, such as soil type and sun exposure.
- Local native plant species are great as they can survive our hot dry summers with little watering.
- Think about plant heights as there may be some local council restrictions.

STEP 4

Approvals

- Your verge design may require approval by your local council.

STEP 5

Prepare your verge

- Remove existing grass.
- Set the verge ground level at least 7.5cm below kerbs and paths to allow for mulch.
- Apply soil conditions to improve soil's moisture and nutrient holding capacity.

STEP 6

Irrigation and watering

- Contact a Waterwise specialist to help with installing an irrigation system.
- Stick to the watering roster to avoid wasting water.

STEP 7

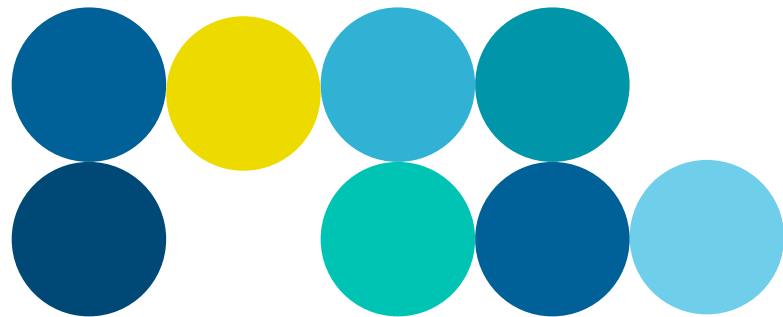
It's planting time

- Best time to plant is late autumn/early winter.
- Before digging, set out plants along the verge to ensure design is correct.
- Apply a 5-10cm thick layer of mulch, keeping away from base of all new plants.

STEP 8

Maintaining your waterwise verge

- Native verge gardens only require occasional weeding and pruning.
- Prune more frequently if you want a formal verge design.
- Check mulch every few months and top up as necessary.



For more information on creating a waterwise verge garden, visit www.watercorporation.com.au/waterwise/waterwise-advice/garden/creating-a-waterwise-verge

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This information is available in alternative formats on request.

watercorporation.com.au/contact

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