

A step by step guide to creating a waterwise verge

The benefits of waterwise verges

Verges form important green spaces within our community, assisting with urban cooling while creating ecological corridors through our streetscapes.

If designed, installed and well maintained, waterwise verges can:

- Contribute to the visual aesthetic of our streets and assist in increasing property prices
- Create a cooling effect and counteract the heat island effects in summer
- Increase the thermal performance of your home
- Provide ecological benefits, such as providing habitat for local wildlife and promoting biodiversity.

The environmental benefits of establishing low water use plantings on verges is gaining popularity. We have put together this brochure to provide a step by step guide to creating a waterwise verge.

Step 1: Understand your local council requirements

Council dos and don'ts – Prior to creating your waterwise verge, it's essential to understand the requirements of your local council. Most will provide a set of guidelines that apply to both new and refurbished verges, detailing what is and isn't permitted as well as providing useful information, such as local native plant species. Some councils may have a verge incentive scheme in place for residents. Check with your local council to find out what they do, the eligibility criteria and what the application process is.

It's also essential to confirm any underground services in your verge, so that you can plan how to best work around them. Contact your local council, and visit the 'Dial Before You Dig' website 1100.com.au

If you live within a designated bushfire prone area check with your local council which bushfire prevention rules apply to your neighbourhood before progressing with your waterwise verge. You should also consider referring to the Department of Fire and Emergency Services website for further information. dfes.wa.gov.au

Streetscape coherence – Take a look at 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 palette as this will make the streetscape appear more consistent.

Inspiration – Source inspiration from garden magazines and websites. Our website has valuable information on waterwise gardening, including garden designs and plant selection. It also provides the details of Waterwise Services that can help you with the development of your waterwise verge. Visit watercorporation.com.au for more information.

Step 2: Designing your verge

Draw up a plan – The best way to start designing your verge is to get out your tape measure and draw an accurate plan that identifies all the existing features and their dimensions. This will give you a good understanding of how your verge can be arranged and what you can fit in. This will also be very handy, as most councils require a plan to be submitted for approval.

Accessibility – Consider pedestrian and mail-delivery access routes on your verge. If your verge is a popular pedestrian thoroughfare or gathering spot, such as opposite a bus stop or school pick up zone, plants may struggle to survive. It may be more practical to install a surface like mulch or paving that can handle a lot of traffic. Also consider setting plants back from kerbs or footpaths by 0.5m to ensure plants don't grow and impede pedestrians. For verges without a footpath, all plants must be set back at least 1.5m from the kerb to allow pedestrian movement and access to and from vehicles that are 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 – Consider low growing, non-climbing plant species around street lights, power poles and street signage. Councils often use cherry pickers to prune trees so consider hardier plants types if your plants are regularly pruned. Also be aware that verges serve as a utilities corridor with a number of water, electrical, gas and telecommunication alignments located within these areas. Utility providers have a right to dig up your verge to gain access to their alignment for new services, and to upgrade or repair existing services. Whilst utilities will try to minimise disruption, rectification of verge treatments following any work can be the responsibility of the resident.

Parking spaces can be cleverly integrated within verges, depending on your verge size. Your local council will need approve any formalised parking spaces to ensure all safety aspects have been considered.

Style and functionality – Consider the style of verge garden you want to create, such as native, cottage, coastal or formal. Also analyse the way your verge is currently being used, for example by pedestrians, for bin collection and mail-delivery and how your new design will cater for these requirements.

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. Similarly, structures or ornamental elements, including play equipment, tree houses and garden sculptures, should not be incorporated due to potential public liability issues. Some alternative forms of treatment, such as paving, may be permitted. Check your council's guidelines for more information.



Step 3: Selecting your plants

Understanding the best plants for your verge – Consider the existing conditions of your verge, such as soil type and sun exposure, and how they may influence your choice of plants.

Unirrigated dryland, native plants are the most appropriate for verge gardens as they can survive our hot dry summers with little to no supplementary watering. These are typically local native plant species which are drought tolerant and common to your local area. For further information regarding plant selection visit the Waterwise Plants Directory at watercorporation.com.au/plants or head down to your local Waterwise Garden Centre for further advice. Find your local one at watercorporation.com.au/waterwise

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

Check the plant height – Low growing shrubs and groundcovers are the best option for verges so as to maintain pedestrian, cycle and vehicular sightlines. Council's will specify the maximum height of plants within verges, generally between 0.5-0.7m. This requirement may be even lower if your property is located on a street corner or major intersection.

Plants to avoid – Steer clear of plants which are prickly, poisonous or may cause allergic reactions.

Street trees – Local councils 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. Should you wish to have a tree planted or removed due to damage or safety reasons, you will need to contact your local council. Care should be taken to avoid any damage to existing trees and their root systems during the development of your waterwise verge.

Lawn – If you want to incorporate 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, which 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 gain joint approval from strata owners and managers before any works are carried out on the verge. Careful consideration should also be given to any irrigation system that is installed and how the verge is going to be managed.

Council approval – Generally, your verge design will need to be approved by your local council prior to undertaking a verge transformation.

Step 5: Preparing your verge

Removing existing grass – Remove grass, by spraying with an appropriate herbicide such as glyphosate (commonly known as Roundup). This ensures your new plantings don't become infested with grass like couch in the future. Always apply as per the directions on the pack, including follow up treatments as required. We don't recommend killing lawn by smothering with mulch, or temporarily covering it in plastic as it's less effective and destroys beneficial soil microbes. Once you're confident the grass is completely dead, you can plant through it.

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 adjoining paths or kerbs. Ensure levels allow for stormwater to be held within your verge, rather than impacting adjoining street stormwater drains. If you have a verge with steep slopes, you may need to consider alternative stabilisation treatments to avoid potential scouring as it's crucial that 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 accordance with their guidelines.

Improving the soil – If you're planning to use a range of exotic and native plants, or your verge will be irrigated, you should consider incorporating soil conditioners like composted organic matter and clay, such as Betonite, within the top 30cm of soil. This will assist in maintaining microbial activity, as well as improving the soil's moisture holding and nutrient holding capacity.

Perth's sandy soils can become water repellent during dry weather. Applying a quality soil wetting agent will increase your soils' 'wettability', allowing water to penetrate deep into the root zone. This is particularly important at planting to aid establishment.

Which products are best? – If sourcing bagged soil conditioner or wetting agents ensure you select products with the Waterwise and Smart Approved WaterMark symbols. Refer to the manufacturer's instructions for application rates. Visit watercorporation.com.au/products for more information.



Step 6: Irrigation and watering

Irrigation system – You should contact a Waterwise Irrigation Service Provider to assist in designing and installing an irrigation system that will best suit your plant selection and verge conditions. Visit watercorporation.com.au/waterwise

Watering times – Our watering rosters are in place to help save precious water. It's important to only water once on your rostered days between 6pm and 9am. Visit 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. Visit watercorporation.com.au/exemption for further information.

Hand watering – If you've installed a dryland unirrigated verge, your plants may benefit from hand watering a couple of times over the summer period to ensure your plants survive until the next rains.

Step 7: It's planting time!

When to plant – The best time to plant your verge 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 that the spacing between plants is even. Be sure to consider the growth of plants so they don't obstruct access routes or public infrastructure as they grow.

Step 8: Laying down the mulch

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.

Which products are best? – If sourcing bagged mulch, ensure you select products with the Waterwise and Smart Approved WaterMark symbols. Visit watercorporation.com.au/products for more information.

Step 9: Maintaining your waterwise verge

Pruning and fertilising – Native verge gardens should only require occasional weeding and pruning. You may wish to prune more frequently in order 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 and refer to the manufacturer's instructions for application rates.

Mulch – Check mulch every few months and replenish as necessary to maintain a 5-10cm even layer across all planting areas. Carefully clean up after re-mulching so mulch isn't dispersed across adjacent footpaths and roads.

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 is in need of attention.

Maintenance assistance – Elderly or disabled residents may be able to gain assistance for maintaining their verges from local community groups. Contact your local council for more information.

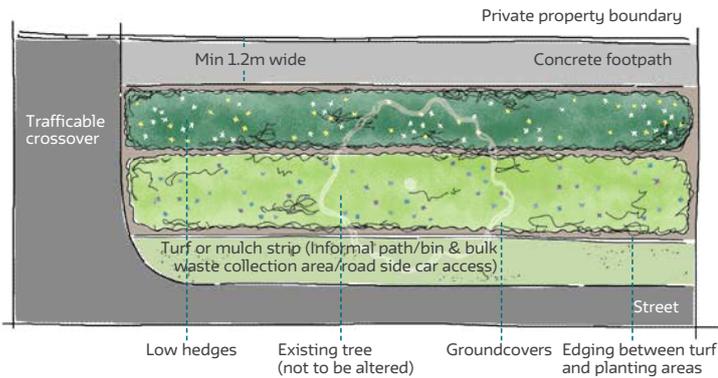


Formal verge design

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.

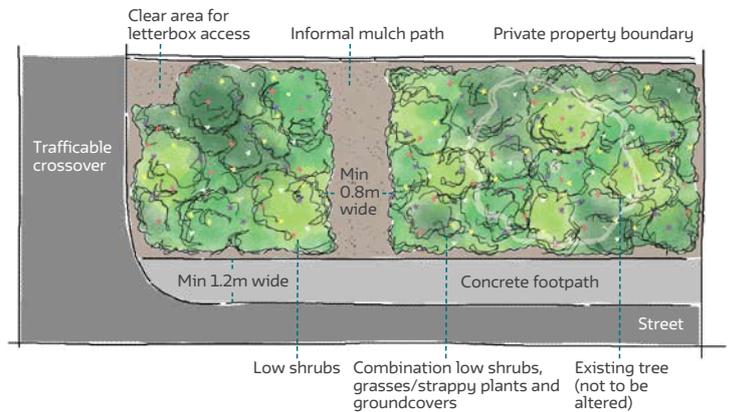


COMMON NAME	BOTANICAL NAME	SPACING
LOW HEDGES		
(Note: These must be maintained to a maximum height of 700mm)		
Sea Lavender	<i>Limonium perezii 'Blue'</i>	300mm
Golf Ball	<i>Pittosporum tenuifolium</i>	500mm
Indian Hawthorn	<i>Rhaphiolepis indica</i>	600mm
Cotton Lavender	<i>Santolina chamaecyparissus</i>	500mm
Native Rosemary 'Mundi' & 'Smokey'	<i>Westringia fruticosa</i>	600mm
GROUND COVERS		
Yellow Buttons	<i>Chrysocephalum apiculatum</i>	500mm
Silver Carpet	<i>Dymondia margaretae</i>	300mm
Shore Juniper	<i>Juniperus conferta</i>	700mm
Creeping Boobialla	<i>Myoporum parvifolium</i>	500mm
Fairy Fan Flower	<i>Scaevola aemula</i>	400mm
Thyme	<i>Thymus vulgaris</i>	300mm
TURF		
Couch	<i>Elymus repens</i>	n/a
Kikuyu	<i>Pennisetum clandestinum</i>	n/a

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.



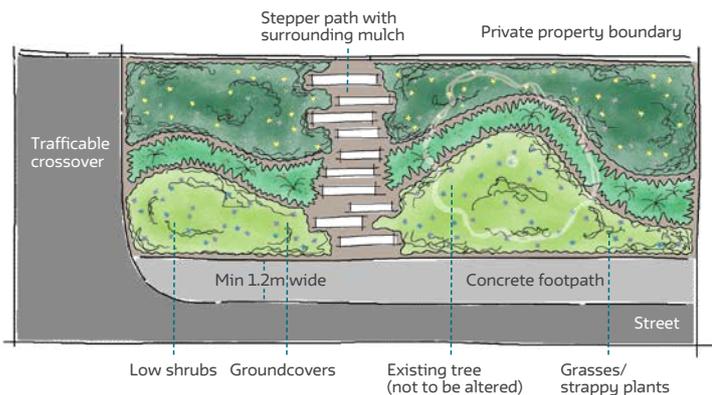
COMMON NAME	BOTANICAL NAME	SPACING
LOW SHRUBS/GROUNDCOVERS		
(Note: These must be maintained to a maximum height of 700mm)		
Honeypot Dryandra	<i>Banksia nivea</i>	500mm
Yellow Buttons	<i>Chrysocephalum apiculatum</i>	500mm
Paper Daisy, Everlasting	<i>Chrysocephalum baxteri</i>	500mm
Spotted Emu Bush	<i>Eremophila maculata</i>	500mm
Silky Eremophila	<i>Eremophila nivea hybrid</i>	600mm
Blue Lechenaultia	<i>Lechenaultia biloba</i>	500mm
Whirling Butterflies	<i>Gaura lindheimeri</i>	500mm
Green Carpet	<i>Grevillea crithmifolia</i>	700mm
Gin Gin Gem,		
Obtuse-leaved Grevillea	<i>Grevillea obtusifolia</i>	700mm
Rice Flower	<i>Pimelea ferruginea</i>	500mm
Native Violet	<i>Viola hederacea (shade)</i>	200mm
GRASSES/STRAPPY PLANTS		
Grey Cottonheads	<i>Conostylis candicans</i>	400mm
Cassia Blue Flax Lily	<i>Dianella revoluta</i>	400mm
White Native Iris	<i>Patersonia occidentalis</i>	400mm



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.



COMMON NAME	BOTANICAL NAME	SPACING
LOW SHRUBS/GROUNDCOVERS		
(Note: These must be maintained to a maximum height of 700mm)		
Pigface	<i>Carpobrotus virescens</i>	600mm
Ruby Saltbush	<i>Enchylaena tomentosa</i>	600mm
Kalbarri Carpet	<i>Eremophila glabra</i>	400mm
Gin Gin Gem,		
Obtuse-leaved Grevillea	<i>Grevillea obtusifolia</i>	700mm
Cushion Bush	<i>Leucophyta brownii</i>	500mm
Dwarf Grey Honey Myrtle	<i>Melaleuca incana nana</i>	500mm
Berry Saltbush	<i>Rhagodia baccata</i>	600mm
Cotton Lavender	<i>Santolina chamaecyparissus</i>	500mm
Thick-leaved Fan Flower	<i>Scaevola crassifolia</i>	400mm
Native Rosemary		
'Mundi' & 'Smokey'	<i>Westringia fruticosa</i>	700mm
GRASSES/STRAPPY PLANTS		
Grey Cottonheads	<i>Conostylis candidans</i>	400mm
Knotted Club Rush	<i>Ficinia nodosa</i>	500mm
Coastal Sword Sedge	<i>Lepidosperma gladiatum</i>	700mm
Spiny Headed Mat Rush	<i>Lomandra hystrix</i>	500mm
White Native Iris	<i>Patersonia occidentalis</i>	400mm

(Note: These must be maintained to a maximum height of 700mm)

For more help to create a waterwise garden visit watercorporation.com.au/waterwise

13 13 85 Account Enquiries (8am - 5pm weekdays)

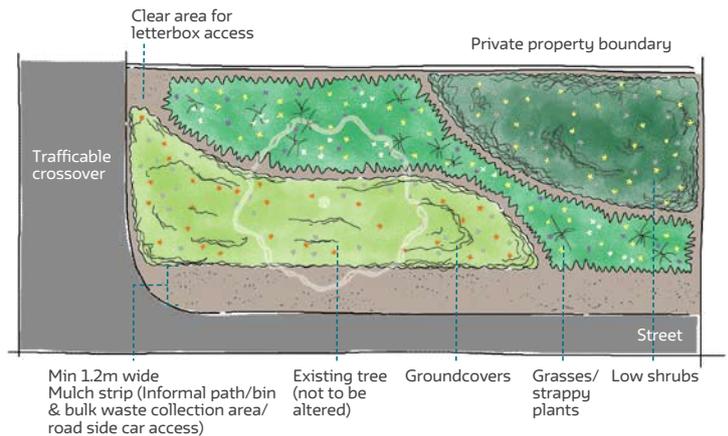
13 36 77 National Relay Service

This information is available in alternative formats on request.

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.



COMMON NAME	BOTANICAL NAME	SPACING
LOW SHRUBS/GROUNDCOVERS		
(Note: These must be maintained to a maximum height of 700mm)		
Golden Aeonium	<i>Aeonium arboreum</i>	300mm
Century Plant	<i>Agave attenuata</i>	500mm
Silver Waves	<i>Cotyledon orbiculata</i>	300mm
Cousin It	<i>Casuarina glauca</i>	500mm
Silver Carpet	<i>Dymondia margaretae</i>	400mm
Shore Juniper	<i>Juniperus conferta</i>	700mm
Bronze Sculpture	<i>Kalanchoe tetraphylla</i>	300mm
Cone Bush	<i>Leucadendron spp.</i>	600mm
Cushion Bush	<i>Leucophyta brownii</i>	500mm
Cotton Lavender	<i>Santolina chamaecyparissus</i>	500mm
Stonecrop	<i>Sedum spathulifolium</i>	400mm
GRASSES/STRAPPY PLANTS		
Kangaroo Paw,		
'Big Red' & 'Yellow'	<i>Anigozanthos flavidus</i>	500mm
Variegated Blue Flax Lily	<i>Dianella hybrid 'Silver Streak'</i>	500mm
Cassia Blue Flax Lily	<i>Dianella revoluta</i>	400mm
Blue Festuca	<i>Festuca glauca</i>	300mm

(Note: These must be maintained to a maximum height of 700mm)

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