

## Permissible Verge Treatment 10.3.4.5 Guidelines – Urban

These Guidelines should be read in conjunction with the Shire of Serpentine Jarrahdale's Council Policy – Permissible Verge Treatments – Urban and the *Public Places and Local Government Property Local Law 2019*.

## What is a street verge?

The verge (nature strip) is the area between the edge of the road and the private property boundary.

Verges are owned by the Crown, but vested in the Shire. The purpose of a street verge is to:

- Provide a buffer between the road and private property where common public facilities such as footpaths, bus stops, parking bays etc. may be placed
- Provide a section of land where essential services such as power, gas and telecommunications can be placed

## Whose responsibility is a street verge?

The maintenance of a verge treatment such as garden, lawns, reticulation, and paving is the responsibility of the householder of the property adjoining the verge.

This may include the following:

- Pruning plants and mowing lawns
- Weed control
- Reticulation repair and maintenance
- Topping up and retaining mulch
- Cleaning and repair of approved pavement

The Shire is responsible for the planting and maintenance of all street trees, and the maintenance of any drainage infrastructure.

The design and establishment of a new verge treatment is the responsibility of the resident, or of the developer in the context of new subdivisions.

#### Why do we need Guidelines?

Street verges are public domain and important for the installation of necessary services such as drainage, power and communication lines. It is important to have rules to manage safety, access and appearance.

These guidelines will outline what can be done to modify or improve the verge area so that:

- It will not detract from the amenity of the locality
- It will be accessible and safe
- It provides continuity and compatibility within the streetscape and with a Strategy where approved
- It does not interfere or compromise existing infrastructure
- It protects and increases the number of street trees

The Shire specifies materials which are acceptable and unacceptable as verge treatments.

Acceptable Materials	Materials with a Maximum Allocation	Non-Permissible Materials
Street trees Plants	Heavy duty paving Open gap brick paving	Retaining walls or other obstructions such as rocks, posts or raised garden beds
Organic mulch Lawn	Porous pavers	Artificial turf



Acceptable Materials	Materials with a Maximum Allocation	Non-Permissible Materials
Edible gardens Reticulation		In-situ concrete or any asphalt material (crossovers and footpath excluded) Compacted materials, such as limestone, gravel or blue metal fines Loose materials such as gravel, blue metal, sawdust, crumbed rubber or crushed bricks Private infrastructure such as letter boxes, water meters, and electrical wiring

#### Contact us

It is important to clarify all information within this document prior to installing a verge treatment. All matters related to verge treatments, including design and/or location difficulties, requests for information and/or approvals, should be directed to the Shire by calling 9526 1111 or emailing info@sjshire.wa.gov.au.

## Permissible verge treatments

You must follow the requirements as outlined below:

- Street trees
- Gardens
- Mulch
- Lawn
- Reticulation
- Paving with prior permission
- Any combination of the above

### Gardens

Reference: E19/3414

In many cases, verge lawn is not being utilised and could be transformed into a garden.

A garden planted with waterwise species doesn't need as much maintenance, water, fertilisers or herbicides as lawn.

The establishment of a low Waterwise garden is encouraged by the Shire, especially if local native species are used. They aid biodiversity, reduce pressure on water resources, cool the surrounding area, and enhance the streetscape amenity.

Plants should be selected carefully. Low growing plants and groundcovers are the most suitable for planting in verges as they create a dense cover which does not encourage the growth of weeds and allow clear sight lines at all times.

The following requirements must be met when planting a verge:

- Where a footpath does not exist on a verge, a minimum of 1.2 m wide area behind the kerb shall be left clear and level to allow pedestrians unhindered passage and for emergency vehicle parking. This area should be mulched.
- Landscaping must not physically or visually obstruct the roadway or any footpath.
- Any landscaping on the verge area must not create any undue hazard to road users or pedestrians.
- To ensure adequate sight lines are maintained at vehicle crossovers and at road intersections, landscaping must not create a sight obstruction. It is important for safety reasons that the landscaping at these locations is planted with low growing vegetation and maintained regularly.



• Plants of a thorny, poisonous or hazardous nature are not permitted to be installed in the verge area.

#### Lawn

Lawns require a significant amount of water. If lawn is needed or preferred, it is important to choose waterwise grass varieties that will cope with heat and drought such as Couch, Buffalo, Zoysia, Saltene or Kikuyu.

Some grass types, however, can be very invasive (such as kikuyu and couch), and in some cases (such as in proximity to waterways or natural areas), male sterile varieties will be the only acceptable type of a particular species. Some varieties of kikuyu that are male sterile include Kenda, Village Green, Mallee and Eureka.

It is also important to prepare the soil before installing new turf.

Organic matter mixed through the top 15 cm of a sandy soil will dramatically improve both water and nutrient holding capacity of the soil, resulting in better looking lawn and less need for water.

## Verge treatments requiring prior approval

Verge treatments that require the Shire's approval are any areas of impermeable or semi-permeable hardstand materials in excess of the maximum allocations listed below. Acceptable hardstand materials include heavy duty paving, open gap brick paving, or porous pavers. These can be discussed and negotiated for desirable outcomes, such as increasing the number of street trees.

Any verge treatments that are not listed as either acceptable or not permitted require the Shire's approval.

#### Paving

Paving in excess of the maximum allocations must be approved by the Shire if you wish to install it on your verge.

The Shire will evaluate each site to determine whether excess paving is appropriate. The evaluation process will take into account the following:

- Existing infrastructure
- Existing in-ground services
- Existing trees and their root systems
- Impact on the Shire's operations
- Use as parking (considerations will include the likely impact on sight distances and adequate size to prevent vehicles blocking pedestrian access)
- Road hierarchy
- Site context

The maximum hardstand allocation is:

- For verges less than 15m, 50% of the frontage, or the width of the crossover, whichever is greater
- For verges of 15m to 20m, up to 7.5m in width (including the crossover), or equivalent area
- For verges more than 20m, 35% of the frontage (including the crossover)

## How to get Approval

Reference: E19/3414

To obtain approval for excess paving or unlisted verge treatments, please submit the following information to the Shire office or info@sjshire.wa.gov.au:



- Letter explaining the proposed verge treatment, address and contact details; or filled out Verge Treatment Variation Urban Application Form (attached);
- A diagram showing the verge plan, location and size of the proposed treatment; and
- Take note of existing trees and their location, in relation to the proposed treatment.

## Verge treatments that are not permitted

Verge treatments that are not permitted include the following:

- Retaining walls or other obstructions such as rocks, posts or raised garden beds
- Artificial turf
- In-situ concrete or any asphalt material (crossovers and footpath excluded)
- Compacted materials, such limestone, gravel or blue metal fines
- Loose materials such as gravel, blue metal, sawdust, crumbed rubber or crushed bricks
- Private infrastructure such as letter boxes, water meters, and electrical wiring

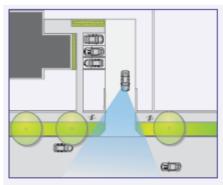
## **Design considerations**

- Consider plant height to help maintain sight lines, plant groundcovers along the road, with taller plants closer to the boundary, ensuring that plants will not create a sight obstruction. Plants should be lower than 750 mm.
- Consider style of garden you want to establish and choose plants accordingly.
- Group plants with the same water, fertiliser and sun requirements (referred to as "Hydrozoning").
- If you wish a 'green carpet' look, mass plant low-growing groundcovers as a lawn substitute.
   Plants like lippia and dichondra have been extensively used as lawn substitute, but other groundcovers work as well, such as snake bush.

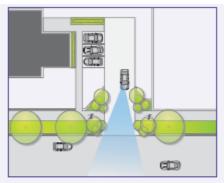
## Sight lines and truncations

Verge treatments must be designed, installed and maintained in accordance with all relevant regulations governing obstruction of sight lines and truncations adjacent to crossovers and intersecting streets (for corner lots). These regulations include the Residential Design Codes of Western Australia, from which the following guide plans are taken.

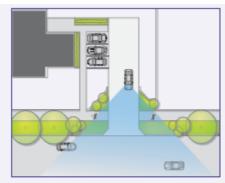
Driveways and crossovers need to maintain adequate sight lines where they intersect streets and footpaths, to ensure visibility and safety:



inadequate truncations are provided resulting in poor sight lines.

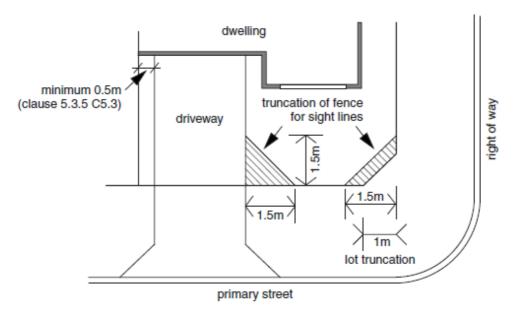


Adequate truncations area provided, however, the landscaping has not been designed to facilitate clear views to the street.



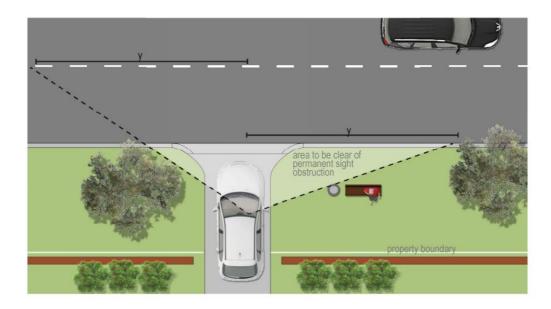
Truncations are provided to the street in a manner that enables a safe view of the pedestrian and vehicular traffic before leaving the property boundary.

The truncation, or area that must be visually permeable, applies within the property boundary as well as on the verge, and includes any sight obstruction (such as vegetation) as well as fences:



Within these truncation areas (a 1.5 m x 1.5 m triangle), vegetation and any other sight obstruction must be maintained at less than 750 mm in height.

The requirements for minimum sight distance at the road interface (i.e. on the verge) are defined by Australian Standard 2890 Parking Facilities (guide plan from the WALGA Crossover Guidelines):



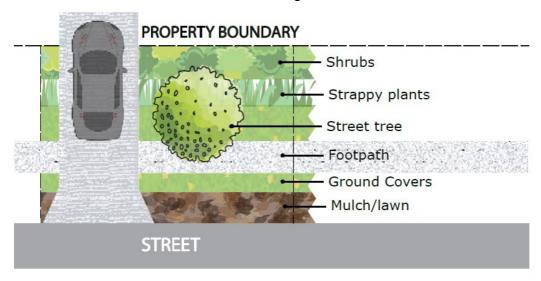
The distance Y is determined according to the prevailing speed along the adjoining roadway, and in a standard residential 50km/h zone is 45m.

### **Examples of verge designs**

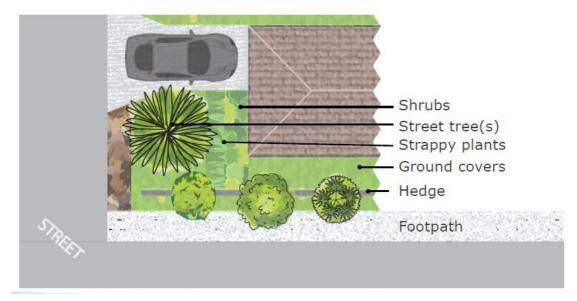
Verge landscaping and design will vary depending on the available space and the location of infrastructure such as footpaths. Some ideas for how to design verges are provided below (plans from City of Cockburn).



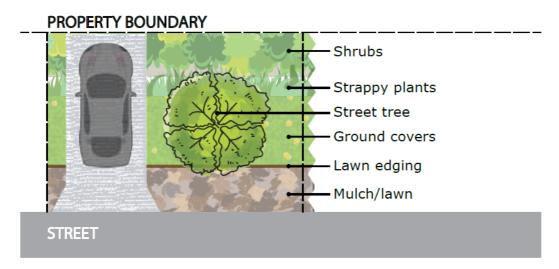
If the footpath is centrally located, a clear strip (1.2 m wide and mulched) next to the kerb is not essential but may be advisable for pedestrian access and for placement of bins. Plants between the mulch strip and the footpath should be selected for low mature height and maintained below 750 mm.



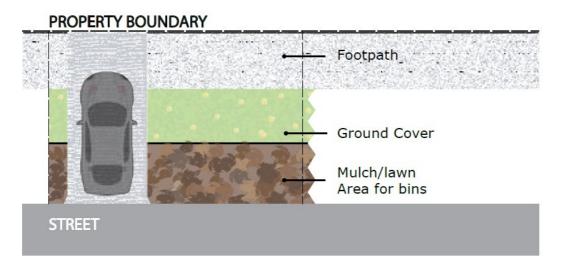
A corner block provides a great opportunity for more trees. The garden feel can be maintained by continuing a hedge or similar planting into the front garden and verge. As the footpath is adjacent to the street in this example, a clear mulch strip is not required.



If the verge has no footpath, a clear strip (1.2 m wide and mulched) is required adjacent to the kerb.



A small verge may not need many species of ground cover. Request a species of street tree that is appropriate for the space available.



#### Street trees

Proposed verge treatments should be in accordance with the Shire of Serpentine Jarrahdale's Street Tree Policy and Urban and Rural Forest Strategy, and are required to take into consideration the retention and protection of existing street trees.

Advice must be sought from the Shire on the provision of street trees for proposed verge treatments. All new verge treatments are required to include at least one street tree unless there are serious mitigating circumstances as determined by the Shire. The Shire will provide, install and maintain the street trees as required.

## Recommended plant species

Some plants that are suitable for planting on a verge are presented here, along with suitable plants for rain gardens and tree pits. Additional information on local native plants can be found in the document "Keeping it Local" on the Shire's website.

The Shire runs an annual Free Verge Plants Program for residents, under which residents can apply for an allocation of free local native seedlings to be planted on their verge.



#### Suitable verge plants

#### **Groundcovers:**

*Grevillea obtusifolia* prostrate form – one of the most "economical" plants. One plant will cover thickly 2-3 square metres of ground. This may easily replace the green of a lawn without the cost and regular maintenance. Low flammability plant.

**Hemiandra pungens** – Snakebush – low growing, prickly, will control unwanted walking across; one plant covers a large area. Low flammability.

**Hardenbergia comptoniana** – climbing plant. When planted as monoculture (without other bushes), can be used as a perfect, thick groundcover. If mixed with other plants will climb over them in garden bed. Low flammability plant.

**Billardiera heterophylla** – Australian Bluebell – sturdy twiner with long stems, blue flowers in summer. Low flammability plant.

Adenanthos cuneatus – Jug Flower – dense and pretty. Attractive to birds.

#### Low growing shrubs:

*Grevillea bipinnatifida* – spreading, with pretty red flowers; birds love it. Low flammability plant.

**Banksia dallanneyi** (previously known as *Dryandra lindleyana*) – small; attractive shape and unusual flowers; must-have in bush gardens. Low flammability plant.

**Banksia nivea** (also called *Dryandra nivea*) – Honeypot – attractive, one of all-time favourites, similar to the above. Low flammability plant.

Grevillea wilsonii - Native fuchsia - little beauty with red flowers. Low flammability plant.

**Hypocalymma robustum** — Swan River Myrtle — small spreading bush with attractive deep pink flowers. Aromatic foliage. Attracts birds. This shrub can grow to 1.5 m depending on the source of cuttings. If on verge — maintain sight lines by slight trim after flowering.

*Pimelea rosea* – Rose Banjine – attractive, rounded architectural shape and stunning when in flowers. Low flammability plant.

### Strappy-leaved plants:

Reference: E19/3414

**Dianella revoluta** – Blueberry Lily – perennial herbaceous, great performer. Benefits from some shade.

**Patersonia occidentalis** – Purple flag – attractive plant forming tufts maturing to 0.5m high and across. Low flammability.

Conostylis aculeata – great small edge plant with yellow flowers. Low flammability plant.

Anigozanthos viridis – local kangaroo paw suitable for wetter position. Low flammability plant.

Anigozanthos manglezii – local kangaroo paw, great in general bush-garden setting. Low flammability plant.

**Ficinia nodosa** (syn. *Isolepis nodosa*) – Knobby Club Rush. Attractive and versatile. 0.8-1m high, 0.6-0.8m wide. Brown flowers at the top of stems. Able to self-seed in home gardens.



**Lomandra spp.** - ideal for locations where unobstructed line of sight rule applies (under 60 cm). The range includes Evergreen Baby™ *Lomandra labill* 'LM600' PBR and Shara™ *Lomandra fluviatilis* 'ABU7' PBR. More plants that are similar are on *OZBREED* link: "Design for line of sight".

### **Medium shrubs:**

**Beaufortia squarrosa** – attractive open shrub with amazing red, orange or yellow flowers. If used on street verge, plant it against the property boundary (as it is taller) in groups of 3-5 for best results. Good for windy sites.

**Calothamnus quadrifidus** – One-sided Bottlebrush – red flowers, versatile, great for wet sites.

*Grevillea obtusifolia* – Obtuse-leaved Grevillea – can grow up to 2m high. Place it closer to fence line. Red flowers, bird attracting, dense. Deep green foliage resembling exotic vegetation. One plant will mature to cover 2-3 square metres. Low flammability plant.

*Hakea ruscifolia* – Candle Hakea – White flowers, bird attracting. Versatile in soil preference. Screening plant. Low flammability characteristic.

*Hypocalymma robustum* – Swan River Myrtle – small to medium spreading bush with attractive deep pink flowers. Aromatic foliage; attracts birds.

*Hypocalymma angustifolium* – great flowering shrub, rounded, compact habit, self-forming shape, plant it against fence; great in moist locations.

Calothamnus hirsutus – soft to touch, reliable, attracts birds; they will nest there.

**Adenanthos meisneri** – another lovely soft foliage bush. Attract birds; they will establish nests there. Low flammability plant.

**Melaleuca lateritia** – Robin Red Breast – can grow to 2.5m high. Bright red flowers in spring and summer. Loved by birds. Tolerant of various conditions (wet, dry, lime, pollution).

#### Tall shrubs:

**Acacia rostellifera** – Summer-scented Wattle – up to 6m high. Yellow flowers. Great for erosion control.

**Actinostrobus pyramidalis** – Swamp Cypress – up to 4 m. Upright shape with strong architectural form. Prefers moist low-lying land. Wind pollinated. Attracts birds nesting.

**Adenanthos cygnorum** – Woolly Bush – up to 4 m high. Small, inconspicuous red flowers attracting birds.

Banksia sessilis - Parrot Bush - up to 8 m. Bird attracting.

*Hakea varia* – Variable-leaf Hakea – up to 4m high, by 3 m wide. Likes winter wet locations. Low flammability.

Prepared by Landscape Architect and Restoration Officer

Last updated March 2019

Reference: E19/3414



## Suitable plants for rain gardens and tree pits

Sedges, Rushes, Grasses	(spacing 6 stems / sqm)
Winter wet / summer dry. Drought tolerant.	Permanently wet or with summer irrigation
Juncus pallidus – Pale Rush; rhizomatous, robust, 0.5-2 m high. Removes Nitrogen. <u>Local</u>	Baumea preissii – robust, colonising perennial, grass- like or herb (sedge), 0.2-2 m high. Fl. purple-brown. Local
Juncus subsecundus – Finger Rush. Colonial perennial. 0.3- 1 m high. Rusty flower heads. Removes Nitrogen. <u>Local</u>	<b>Baumea juncea</b> – Bare Twig Rush; 0.2-1.2 m high; reddish-brown flowers. <u>Local</u>
Carex appressa – Tall sedge / Tussock sedge. 0.5-2m high. Dense tufts. Removes Nitrogen. Non-local.	<b>Lepidosperma longitudinale</b> – Pithy Sword Sedge. Grass-like, 0.5-2 m high. Fl. Brown. Black, white or grey peaty sand, clay. <u>Local</u>
<i>Ficinia nodosa</i> (syn. <i>Isolepis nodosa</i> ) – Knobby Club Rush; versatile; flower at the top of stems; 0.8-1m high, 0.6-0.8m wide. Non-local	Juncus kraussii – Salt Marsh Rush, Sea Rush, Dune Slack Rush. White or grey sand, clay, alluvium. <u>Non-local</u>
<b>Poa poiformis</b> – Coastal poa. Perennial, grass, 0.15-0.9 m high. Temporary inundation. Effective in removing Nitrogen. Local	Isolepis cernua – Nodding Club-rush. Grass-like, to 0.3 m high. Dark peaty or clay loam, sandy clay, silt, saline, granite. Non-local
	Baumea articulata – Joint Twig Sedge; rhizomatous, robust perennial, grass-like or herb (sedge), 1-2.6 m high, flowers red/brown, pendulous inflorescences.  Black sands, non-local
	Schoenoplectus validus – Lake Club-rush. Robust perennial, grass-like or herb (sedge), 0.8-2 m high. Fl. Brown. Silt and sand
	Sporobolus virginicus – Marine couch. Rhizomatous, stoloniferous, tussocky perennial, grass, 0.1-0.5 m high. Effective in removing Nitrogen. Non-local
	<b>Baumea rubiginosa</b> – Soft Twig Sedge, robust perennial, grass-like, up to 4 m high, to 2 m wide. Effective in removing Nitrogen. <u>Local</u>
Trees and shrubs (and some herb	
Winter wet / summer dry. Drought tolerant.	Permanently wet or with summer irrigation
Casuarina obesa – Swamp Sheoak	Melaleuca lateritia – Robin Redbrest bush. Effective in removing Nitrogen.
Agonis flexuosa – WA Peppermint	Eucalyptus rudis – Flooded gum
Kunzea ericifolia – Spearwood	Melaleuca preissiana
Hypocalymma angustifiloum – White Myrtle	Melaleuca teretifolia – for sandy with perched water
Regelia inops	Melaleuca incana – Grey Honey Myrtle. Effective in removing Nitrogen.
Calothamnus hirsutus	Hakea varia
Beaufortia elegans	Grevillea obtusifolia
Hakea prostrata, H. trifurcata, H. lissocarpha, H. undulata	Scaevola lanceolata
Grevillea pressii	
Xanthorrhoea preissii – Grass Tree (drought tolerant once established)	

Prepared by Landscape Architect and Restoration Officer

Reference: E19/3414



# Verge Treatment Variation — Urban — Application Form

It is a requirement under the *Local Government Act 1995* that permission is sought before any private works are undertaken on a public thoroughfare or local government land. However, the Shire permits the planting or installation of plants, lawn, organic mulch and/or a maximum hardstand allocation without prior approval.

Materials that require prior approval include any impermeable or semi-permeable hardstand materials in excess of the maximum allocation (including heavy duty paving, open gap brick paving, or porous pavers), and materials that are not listed in the Permissible Verge Treatments – Urban Council Policy as permitted or not allowed.

Property address adjacer	nt to the proposed ve	erge treatment
Lot/House Number:	_ Street Name:	Suburb:
Property Owner Contact	Details	
First Name:		Surname:
Postal Address:		Email Address:
Telephone Number:		
		ave provided in lodging this application is the email address to entine Jarrahdale in relation to this application.
<b>Contractor Contact Detai</b>	ls (if applicable)	
Name:		_ Telephone Number:
Email Address:		
I want a copy of the Shire's	correspondence to be	e sent also to my contractor YES / NO (circle one)
<b>Proposed Verge Treatme</b>	nt Details	
Material to be used: Heav	y duty paving / Open	gap brick paving / Porous pavers (circle applicable)
Or details of treatment:		
Justification:  I agree that the work will be done Guidelines, and acknowledge the	e in accordance with the SI	nire's Permissible Verge Treatments – Urban Council Policy and
The maximum area allow Permissible paving mate Please state paving size The level and grade of th The landscape treatmen No plants higher than 75 No retaining walls, steps No inorganic mulches (s 1.2 m wide access for per	wed for hardstand is speci- erial is brick and concrete of on diagram and clearly do ne verge is not to be altered to needs to allow for street 50mm when mature within or any other items protruc- tone, pebbles, gravel, crus- edestrians must be provided a a plan of the proposed wavailable on the reverse of	unit pavers elineate the crossover from the paving ed, unless to create watering basins around trees trees, whether existing or to be installed, with specified setbacks sight lines, or of hazardous nature are allowed ding above the natural level of the verge are allowed shed bricks) are allowed ed along the road kerb line, where there is no footpath terge treatment which includes the dimensions of the proposed this form for this purpose, or a separate plan can be submitted).
The particulars shown in th	is application are true	to the best of my knowledge and belief.
Signature:		Date:



Reference: E19/3414

# Attachment 10.3.4.5 **Verge Treatment Variation – Urban – Application Form**

## **Verge Treatment Diagram**

Please show the location of existing public utilities, street trees, vehicular crossover, footpath, and dimensions and details of the area to be landscaped in the space below, or attach a separate file.		