



Landscape Guidelines

How to prepare a Landscape Plan
in the Shire of Yarra Ranges



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Photo credits:

Cover: Main photo: Juvenile King Parrot (Emma Campbell), Golden Tip *Goodia lotifolia* (Colleen Miller), Old Man's Beard *Austral clematis* (David Blair).
Contents page: Chocolate Lily *Arthropodium strictum* (Marty White), Crimson Rosella eating *Dianella* flowers (Emma Campbell).



Landscape Guidelines purpose & scope

These Landscape Guidelines are aimed at landscape designers and people who are applying for a planning permit. The guidelines will help you to develop Landscape Plans that are consistent with the Shire of Yarra Ranges' current policies, strategies and programs aimed at protecting our natural environment. Use of these guidelines will help ensure that your planning application is processed efficiently.

These guidelines outline the key "soft landscaping" design aspects that should be taken into consideration in all developments, including residential, medium density housing, industrial, retail and commercial developments, that require a Landscape Plan as part of a planning application.

These Landscape Guidelines should be used in conjunction with the following documents when developing a Landscape Plan:

:: **Environmental Weeds within the Shire of Yarra Ranges**
www.yarraranges.vic.gov.au/Files/List_of_Environmental_Weeds.pdf

:: **Yarra Ranges Local Plant Directory**
www.yarraranges.vic.gov.au/plants



Native violet *Viola hederacea*
(Caroline Carvalho)

Introduction

The Shire of Yarra Ranges region is recognised as one of the most beautiful natural landscapes in Victoria. It makes up 51% of the Yarra Catchment and hosts some of the most significant biodiversity assets of the State including habitat for the two endangered state faunal emblems - the Leadbeater's Possum and the Helmeted Honeyeater, and the State floral emblem - the Common Heath. The region's forests are home to the tallest flowering plant in the world – the Mountain Ash. The Shire's natural ecosystems draw tourists to the area, making it a popular place for recreation and enjoyment of the scenic beauty.

It is for these environmental, social and eco-tourism values that the Shire of Yarra Ranges has a range of policies, strategies, the Planning Scheme and supportive Guidelines to assist in the responsible management and preservation of the valued natural assets unique to this region.

Vision 2020

Vision 2020 is a shared vision of the Shire of Yarra Ranges, developed in consultation with the community, to make a statement of what kind of community and environment we wish for in the future. It is a steering document that guides all departments of the council.

Under the Environmental Stewardship Theme, Vision 2020 sees the Shire protecting and enhancing the biodiversity values of our area through linking vegetation corridors, restoring indigenous vegetation and natural waterways and controlling the spread of environmental weeds. Through the strategic guidance of the Shire's Environment Strategy (2009) and issue specific sub-strategies the Shire is working to achieve this vision.

Vegetation protection in the Shire of Yarra Ranges

General vegetation protection

The protection of native vegetation is a high priority in the Shire of Yarra Ranges. Under Local Provisions 22.12 in the Shire of Yarra Ranges (SYR) Planning Scheme, vegetation is protected from destruction on both public and private land areas. Any plant that occurs naturally (i.e. is indigenous to an area), whether it is a small grass tussock, an orchid, wildflower or the tallest tree, is protected and requires a permit to be removed or lopped. A permit is also required to remove, destroy or lop any native (Australian but not locally native) and introduced plant species greater than five metres in height. Doing so without a permit may be a breach of the law. Some exceptions do exist in relation to vegetation removal.

Common Correa *Correa reflexa*
(Marty White)



Contact with the Shire's Planning Services Department (1300 368 333) should be made prior to any actions being undertaken.

Vegetation on Shire-owned land

Vegetation, including dead trees, cannot be removed or lopped on Shire-owned land such as roadside reserves and footpath verges without written approval from the Shire. Dead trees provide important habitat for native fauna and are an essential part of wildlife corridors.

Contact the Shire's Arborists Team (1300 368 300) for exemptions in relation to Dangerous Tree Assessments. This is a fee-for-service

assessment conducted by qualified arborists.

Remnant indigenous vegetation

Remnant vegetation (indigenous vegetation that grows in the area naturally and has not been planted) is sensitive to disturbance through indiscriminate and incremental clearing which can result in the intrusion of environmental weeds and the loss of habitat for plants and animals.

In relation to the re-establishment or restoration of indigenous vegetation, the Planning Scheme states:

"In any landscaping or replanting requirements imposed under this planning scheme, preference be given to planting native species which are indigenous to the area within which they are to be planted, and which are suitable for the location and purpose sought for the replanting. These plantings should not include species that are listed as environmental weeds in this local planning policy". (Clause 22.12-6)

Victorian Native Vegetation Management Framework (NVMF)

In addition to the Shire's Planning Scheme zoning and overlays, the NVMF is a Victorian Government policy incorporated into the Victorian Planning Provisions. The "Native Vegetation Management: a Framework for Action" aims to achieve a "net-gain" – an increase in native vegetation - across the State whenever there are planned disturbances of native vegetation. The Shire of Yarra Ranges needs to ensure all developments that include vegetation removal comply with this State policy and have the required "offsets" (to replace native vegetation or enhance remaining vegetation) can be met to ensure a net-gain is achieved.

Developments that require a large amount of vegetation removal, or that propose removal of rare or threatened plant species may be required to employ a qualified Land Management Consultant to develop a 'Land Management Plan' including a 'habitat hectare' vegetation quality assessment to comply with the NVMF.

Preparing a Landscape Plan

Step A: What zone is your property in?

The Shire of Yarra Ranges (SYR) has adopted a series of rural zones and overlays from the Victorian Planning Provisions that acknowledge the values of certain classifications of rural land and their associated environmental significance. The zone and associated overlays that apply to a property will influence how that land is allowed to be used, making it important to understand these limitations before you start planning your development.

How to find what zone your property is in

- :: Contact the SYR 'Community Links' office 1300 368 333 or visit them at the following locations:

Lilydale – corner of Anderson & Hardy Streets

Healesville – 276 Maroondah Hwy

Monbulk – 94 Main Street

Upwey – 40 Main Street

Yarra Junction – corner of Warburton Hwy & Hoddle Street

- :: Search for your property at
<http://services.land.vic.gov.au/landchannel/content/addressSearch>

- :: Search the SYR Planning Scheme online:
www.dse.vic.gov.au/planningschemes/yarraranges/home.html

A basic outline of rural zones and overlays

Rural Conservation Zone (RCZ)

Land classified RCZ is the most protected against use or development that is considered environmentally unsustainable. Generally RCZ land has a high degree of remnant vegetation and is located in an area of continuous indigenous vegetation.

Green Wedge Zone (GWZ)

GWZ land is the interface between urban fringes and rural land. This zoning is designed to maintain areas for agriculture and horticulture to continue in an environmentally sustainable manner.

Environmental Significance Overlay (ESO)

ESOs identify areas where the development of the land may be affected by environmental constraints and to ensure the development is compatible with identified environmental values. The Shire of Yarra Ranges has 75 sites of Botanical Significance and 39 sites of Zoological Significance identified in ESO - Schedule 1 of the Planning Scheme. Development on or around these sites will require increased environmental sensitivity.

Wildfire Management Overlay (WMO)

A WMO is applied to rural properties that carry a reasonable risk of bushfire due to the density and type of vegetation. Developments that are planned on properties with a WMO will have to carefully consider wildfire prevention along with the requirement to protect biodiversity. Some developments will require a 'Wildfire Management Plan' to be designed by a qualified Land Management Consultant.

Erosion Management Overlay (EMO)

An EMO is used to protect areas prone to erosion, landslip or other land degradation processes, by minimising land disturbance and inappropriate development. Land with an EMO will have limitations on the type of development allowed including limitations on soil removal and movement.

Snowy Daisy Bush *Olearia lirata*
(Marty White) King Parrot (Emma
Campbell)



Step B: Key principles to consider in your Landscape Plan

Sustainable purchasing

Council is committed to the principles of sustainability. Landscape designs need to incorporate environmental sustainability by:

- :: Using materials produced from renewable resources for mulch, garden sleepers, decking materials, and stone, recycled brick or recycled concrete
- :: Using materials that are locally sourced that contribute to the betterment of the local economy and reduce high transportation costs and emission impacts on the environment
- :: Selecting plants and built features that conserve water and treat/re-use wastewater and stormwater runoff

Biodiversity protection & enhancement

In order to protect and enhance remnant indigenous vegetation, landscape designs must:

- :: Identify and protect any existing remnant indigenous vegetation
- :: Identify and remove environmental weeds
- :: Establish gardens using local indigenous plant species
- :: Recognise that native animals will be attracted to and flourish in indigenous gardens
- :: Where required, plan for wildfire management while protecting biodiversity values

Water conservation

With water resources increasingly limited, all garden designs must incorporate efforts to reduce demand for potable water for non-drinking purposes, and to improve the quality of water before it enters waterways.

These include but are not limited to:

- :: Keeping lawn areas to a minimum - consider porous paving, ground cover plants
- :: Incorporating greywater/stormwater irrigation
- :: Selecting and grouping plants according to their water needs
- :: Use of sustainable mulch to a minimum of 75mm depth to minimise evaporation

Energy conservation

Reducing the energy requirements in the establishment and on-going maintenance of a landscape is most effective if done at the planning stage.

Common Everlasting
Chrysocephalum apiculatum
(Shire of Yarra Ranges)



Energy requirements come in many forms:

- :: Human labour to mow lawns, water plants, apply fertilisers and herbicides.
- :: Petrol to run mowers and whipper-snippers
- :: Electricity to run pond pumps, lighting and electric mowers
- :: Energy costs involved in producing and using herbicides or fertiliser
- :: Transport of garden products over long distances



Left to right:
Tasman Flax-lily
Dianella tasmanica
Knobby Club Rush
Ficinia nodosa
(Caroline Carvalho)

Tips to reduce energy requirements:

- :: Keep lawn areas to a minimum – they require a lot of energy (fertilisers, mowing) in their establishment and continual maintenance
- :: Use grass seed, not instant turf, to establish lawns (see below)
- :: Use locally available products to reduce transport energy costs and to keep with the local character (avoid river pebbles harvested from Asia, or Merbau timber decking from Indonesian rainforests)
- :: Avoid plants that are vigorous growers or “weedy”, as these will require on-going control requiring human labour, mowing and herbicides
- :: Plant selection and placement should contribute to solar efficiency of buildings by providing shade in the summer and allowing sun through in the winter

Wildfire management

If your property is located in a potential bushfire area you will need to appropriately manage the vegetation around your home. Proper planning in the design phase can provide the appropriate mix of elements required to save your house while protecting the biodiversity values of your property.

- :: Design vegetation breaks around your house to slow the spread and speed of the fire and reduce radiant heat
- :: Remove existing weeds and do not introduce new ones into the garden as weeds often contribute to high fuel loads that feed fires
- :: Don't rely on plants being ‘fire-retardant’ – all plants can burn in high intensity fires
- :: Avoid having plants near your home that may burn more easily. Such plants include those that accumulate lots of dry or dead debris during the fire season, have loose, flaky bark, have masses of very fine leaves or have very low moisture content
- :: Do not plant large shrubs and trees too close to buildings (within 2m) where they can drop a limb or bring the fire over the building
- :: Consider the building location in relation to prevailing summer winds, as this indicates the most likely direction a bushfire may come from
- :: Ensure good access to water for firefighting
- :: Graded or ploughed breaks can encourage weeds and cause soil erosion so consider other ways of creating low-fuel areas, such as grazing, paving or slashing

Further reading

'Landscape and Building Design for Bushfire Areas', Caird Ramsay and Lisle Rudolph, CSIRO Publishing, 2003.

Step C:

What must be in your Landscape Plan

When developing your Landscape Plan we recommend you use the accompanying Landscape Plan Applicant Checklist to ensure you include all the required elements in your plan. Below is a summary of the elements you should include.

1. Document information

Please use a standard scale of 1:100 or 1:200 to allow the plan to be legible when printed on A4 or A3 sized paper. Larger developments may submit larger sized plans if necessary. All plans must be black and white only; colour detail will not get reproduced. If colour plans are necessary ensure that at least five copies are supplied to the Council with your application.

Include the planning permit number supplied by the SYR Planning Services Department.

2. Information about existing conditions on the property

Include on the landscape plan drawing or in an attached document:

- :: Property statutory requirements: the zone and any overlays or '173 Agreements' attached to the property
- :: Descriptions of neighbourhood character, including nature strips, remnant vegetation, weeds, roadsides, footpaths and parks or reserves. For small developments "neighbourhood" generally means neighbouring properties; for larger developments streets, blocks and suburbs should be considered
- :: Height and type of existing fencing
- :: Height and location of adjoining buildings

3. Design justification

Include in your Landscape Plan, or in an attached document:

- :: The objectives of your landscape design. Objectives could include visual screening, buffers, traffic control, biodiversity protection and enhancement, or solar access
- :: Neighbourhood character: How will the proposed development fit in with the neighbourhood character? What is the housing density, how is the land used?
- :: Topography, soil type: contours, slope direction, drainage
 - plan solar access for building and garden placement to make the most of solar energy
 - Is the soil sandy or clay? This will determine suitable plant choices
- :: Linkages to public open space or bushland
 - Is the site close to existing parks or bushland that will have an impact on the appropriate design of the development?

4. Landscape Plan drawing

A landscape drawing should graphically represent the areas to be occupied by built structures, as well as showing the placement of vegetation to be removed or planted. This will allow the council to more accurately determine the appropriateness of the changes to existing vegetation and the objectives of new plantings. While the landscape drawing is best prepared by a professional, it can be done by anyone as long as all the required elements are included.



Slender Bitter-pea
Daviesia leptophylla
(Shire of Yarra Ranges)

The drawing should show:

- :: Location of existing buildings, including those on immediately adjoining properties
- :: Vegetation which is to be retained, including Tree Protection Zones
- :: Vegetation which is to be removed
- :: Proposed plantings, using the code in your Plant Schedule, with plant numbers, or density (i.e. number of plants per square metre) for mass plantings
- :: Paths and areas covered by paving, driveways etc
- :: A legend to explain the graphic symbols used
- :: North arrow

Developments that require earthworks or the alteration of drainage lines should show the contours and directions of the slope,

any areas of cut and fill, and the location of underground and overhead services in the landscape drawing..

Refer to the example of a Landscape Plan drawing on page 20.

5. Plant Schedule

A Plant Schedule is a detailed list of all the plants that are proposed in your Landscape Plan. Landscape Plans should have a minimum of 50% indigenous plant species unless the zone or overlays require a higher proportion. Refer to “Minimum indigenous vegetation for your zone” on page 10 for guidance on acceptable percentage mixes of indigenous and non-indigenous species.

Landscape Plans will not be approved if they include plants that are listed as environmental weeds within the Shire of Yarra Ranges or as declared Noxious Weeds for the State of Victoria.

The Plant Schedule should include:

- :: **Botanical and common names:** Both names are required to help accurately identify each plant as common names can vary. Please include any information regarding a specific variety or cultivar of the plant.
- :: **Height and width at maturity:** The standard maximum height and width each plant can be expected to grow to. This should be taken into consideration for placement of plants near buildings or driveways to ensure the plant will not obstruct vision or cause damage to structures when fully grown.
- :: **Quantities and Pot size:** State the number of each plant species to be planted and the size (the diameter of the pot) of the commercially available pot size you are intending to purchase. This will provide an indication of the maturity of the plant you are going to put in, which has an impact on the way the plant will perform in a specific design and how it will need to be maintained to ensure proper establishment and on-going plant health.

- ∴ **Plant code:** Use a two letter code which will identify the plant on the Landscape Plan drawing. Codes are not standardised but generally consist of the first initials of the plant's botanical name.

An example of a Plant Schedule

Type	Code	Botanical name	Common Name	Height x Width	Pot Size	Quantity
TREES	AL	<i>Allocasuarina littoralis</i>	Black Sheoke	12 x 6m	250mm	2
	AM	<i>Acacia melanoxylon</i>	Blackwood	9 x 5m	250mm	3
LARGE SHRUBS	KE	<i>Kunzea leptospermoides</i>	Burgan	2.5 x 2m	250mm	12
	PL	<i>Prostanthera lasianthos</i>	Christmas Bush	2 x 2m	250mm	9
SHRUBS	CR	<i>Correa reflexa</i>	Common Correa	9 x 9m	50mm	12
	BM	<i>Banksia marginata</i>	Silver Banksia	2 x 2.5m	50mm	4
CLIMBERS	HV	<i>Hardenbergia violacea</i>	Purple Coral Pea	3 x 9m	50mm	6
GRASSES & SEDGES	CA	<i>Carex appressa</i>	Tall Sedge	1 x 1m	50mm	4
	PE	<i>Poa ensiformis</i>	Purple Sheath Tussock Grass	1 x 1m	50mm	12
GROUND COVERS	BM	<i>Brachyscome multifida</i>	Cut-Leaf Daisy	15 x 9m	50mm	3
	KP	<i>Kennedia prostrata</i>	Running Postman	1.5 x 2m	50mm	5

Native Raspberry *Rubus parvifolia*
(Simone Orscheg)



Things to consider when choosing plants

:: Is it a known environmental weed in the Shire of Yarra Ranges?

Many species of weeds were originally used as garden plants and are often still available for sale. Now many of these plants are “jumping the garden fence” and damaging our native grasslands and forests. These plants are known as “environmental weeds”. Plant Schedules that specify the use of environmental weed species will be rejected. The Shire is also taking a precautionary approach by preventing the planting of species which have been identified as weeds in our area in reports like the World Wildlife Fund’s ‘*National list of naturalised invasive and potentially invasive garden plants*’. www.wwf.org.au/publications/ListInvasivePlants/

:: Is it an indigenous plant to the Shire of Yarra Ranges?

“**Indigenous**” plants are plants that naturally occur in a given area. There are 44 naturally-occurring groups of indigenous plants – “Vegetation Communities” and over 900

individual plant species that are indigenous to the Shire of Yarra Ranges. These plants are adapted to the local soil types and climatic conditions and are mostly likely to be the best option for low water use gardens and providing habitat for native animals. Specific lists of plants indigenous to a site can be produced by request from any Shire office and can also be found at Yarra Ranges Online Maps http://www.mapimage.net/yarra_ranges/

The use of indigenous, or locally native, plants is strongly encouraged in all Plant Schedules as they will increase the environmental value of any development. All developments should have a minimum of 50% indigenous plants but some developments in environmentally sensitive areas should have 100% indigenous planting.

Properties with conservation zones or overlays may be required to use a majority or entirety of indigenous plants to protect or enhance the biodiversity values of the property. Properties outside key conservation zones may use some non-indigenous plant species where this is consistent with the neighbourhood character and the plant species used are not weeds.

Minimum indigenous vegetation for your zone

Property zone	With no planning overlays	With planning overlays	
		Environmental Significance or Subject to Inundation*	Significant Landscape
Rural Conservation Zone	A minimum of 85% indigenous plant species	100% indigenous plant species	85% indigenous plant species
Green Wedge Zone Urban Floodway Zone*	A minimum of 85% indigenous plant species	100% indigenous plant species	85% indigenous plant species
Rural Living Zone	A minimum of 70% indigenous plant species	100% indigenous plant species	85% indigenous plant species
Residential 1 Zone Industrial 1 Zone	A minimum of 50% indigenous plant species	100% indigenous plant species	85% indigenous plant species
Other zones (or) Business 1	A minimum of 50% indigenous plant species	100% indigenous plant species	85% indigenous plant species

:: All properties with a Wildfire Management Overlay must ensure CFA Vegetation Management Requirements are met within the inner and outer Fire Management Zones

:: % is based on the number of plants, not plant species used

*Specific consideration is required on plant selection and densities so as to not impede surface water flow.

Where possible, plant species specifically indigenous to your property’s ‘Shire of Yarra Ranges Vegetation Community’ should be used. To find the vegetation community for your property see Yarra Ranges Online Maps http://www.mapimage.net/yarra_ranges/. Plant lists for each vegetation community are available at www.yarraranges.vic.gov/plants, from Shire offices or Community Links.

“Native” plants are plants that naturally occur in Australia, but not necessarily within the Shire of Yarra Ranges. Some native plants can be weedy when outside of their natural range. For example: Sweet Pittosporum (*Pittosporum undulatum*) is indigenous to Gippsland, but only considered native in SYR where it is well known as an environmental weed. Cultivars of indigenous species are also considered to be native.

“Exotic” plants are plants that did not naturally originate in Australia, having been imported from around the world. This includes plants suited to a wide range of climatic conditions. With the warm, wet climatic conditions and lack of strong, cold winters throughout most of Australia, some exotic plants flourish and can become environmental weeds.

:: Is it low water use?

While all plants take some watering to become established, avoid plants that require on-going intensive watering such as ferns and azaleas. Take into consideration limitations for watering gardens based on water restriction levels. For example, Stage 3 restrictions allow targeted drip irrigation and hand-watering at

certain times, but not spray watering systems. Stage 4 restrictions will mean no garden watering at any time.

:: Does it provide the function you want it to?

Consider the mature size and shape of a plant to determine its most appropriate placement and whether it will provide the right function (for example screening, bird-attracting or shade). Also take into consideration the seasonality of a plant as its ability to provide that function may change throughout the year. Try to select a range of plants that will provide fast and slow growing components to the landscape to provide both a more immediate and a long-term effect.

:: Is the plant suited to the site’s environmental conditions?

For example, is it shade tolerant, does it require full sun, what type of soil is it best suited for, can it handle inundation by water?

Silver Banksia *Banksia marginata*
(Kelly Castelletti)



6. Plant and tree protection

Trees can be severely damaged by the effect of soil compaction or mechanical damage to their roots during building construction. Landscape Plans must provide a description of how existing vegetation (particularly indigenous or rare plant species) will be adequately protected on a development site. It may be advisable to seek advice from an arborist to determine the appropriate Tree Protection Zone for existing trees that are to be retained in the plan.

Cat's Claw Grevillea
Grevillea alpina
(D. Allen)

Note: there are strict regulations regarding the removal of vegetation within the Shire of Yarra Ranges. Property owners and contractors could be fined if vegetation is removed that is not approved by your planning permit. Please make sure you clearly outline all intended tree removal on your Landscape Plan for proper assessment by Council and to avoid problems later.

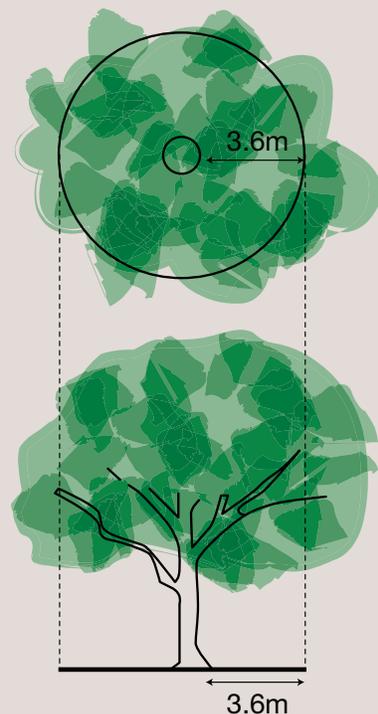


A method of determining the Tree Protection Zone

1. Measure the diameter of the tree at 1.5m above the ground (If the tree has forked into multiple trunks below 1.5m, the diameter is measured below the fork).
2. Calculate the Tree Protection Zone by multiplying the diameter by 12.

Example:

A mature Blackwood (*Acacia melanoxylon*) tree may have a diameter of 30cm. $30\text{cm} \times 12 = 360\text{ cm}$ (3.6m). The Tree Protection Zone will therefore be a 3.6m radius around the tree.



Tree protection guidelines

Prior to construction:

- :: A "Tree Protection Zone" must be established around the tree (see page 12)
- :: The Tree Protection Zone must be fenced with a 1.5m high chain link fence
- :: Organic mulch 100mm deep should be laid in the Tree Protection Zone to retain moisture, suppress weeds and clearly mark out the area that is not to be compacted
- :: It must be clearly explained to contractors that there must be no damage to the trunks or limbs of these trees

During construction:

- :: There must be no compaction in the Tree Protection Zone, no machinery, materials or pedestrian traffic
- :: Any roots that have to be severed must be cleanly cut with secateurs, saw or, if under 50mm diameter, a spade, not ripped with an excavator
- :: Soil or other materials must not be built up around the trunks
- :: Care must be taken not to spill fuel or chemicals in the Tree Protection Zone
- :: The trees must be watered regularly, especially during hot weather
- :: Any weeds must be removed to prevent competition with the trees

After construction:

- :: Trees must be regularly monitored to assess impacts
- :: Pest control, weed control and pruning may be needed. All pruning must meet the Australian Standard for Pruning of Amenity Trees, AS 4373-1996
- :: Watering must be kept up during warm weather, with care taken to ensure that the trees do not become waterlogged

Protecting shrubs & groundcover plants

- :: All shrubs or ground covers to be retained should be clearly marked with flagging tape or with a temporary fence of high-visibility materials and wooden stakes

7. Soil preparation

The Landscape Plan should indicate what work is to be done to prepare the soil in lawn and garden bed areas. Where possible, existing topsoil should be retained during a development and re-used. If additional soil is required it should be obtained from a reputable local source and incorporated into the existing soil on site. Existing weeds should be controlled prior to any movement of soil.

- :: Recommended topsoil levels are approximately 75mm for lawns and approximately 125mm for garden beds
- :: The existing soil in lawn areas should be rotary-hoed to a depth of 100mm to promote the establishment of lawn seed
- :: If soils have a high content of clay, gypsum should be added to help increase friability (apply according to manufacturers guidelines)

8. Planting techniques

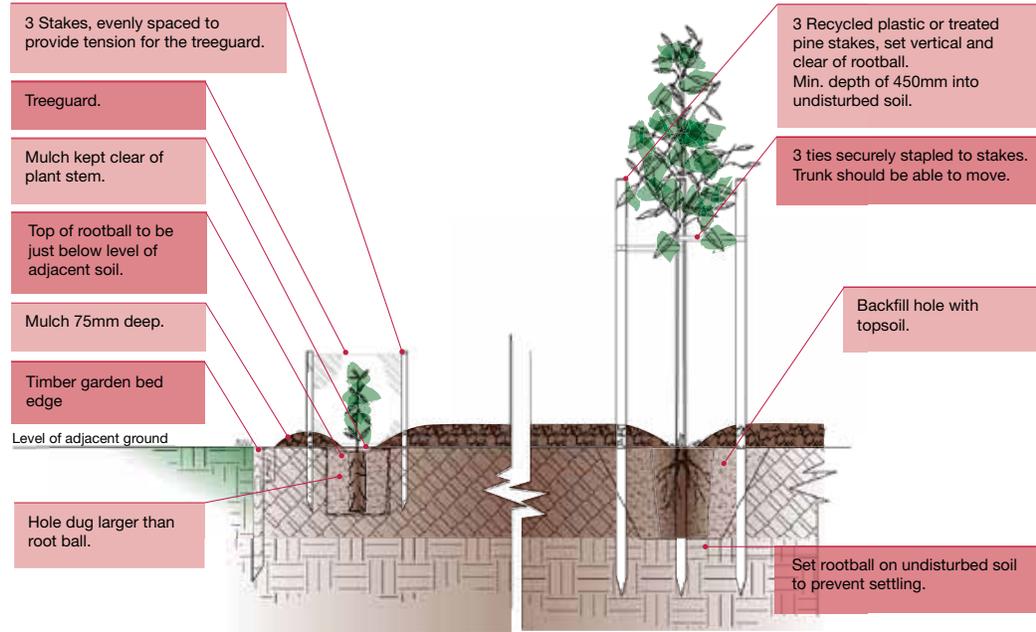
Include in your Landscape Plan a description or diagram of the planting technique to be used, accompanied by a diagram.

Holes for plants should be dug larger than the pot so there is loose soil around the plant to allow its roots to expand. Half-fill the hole with water, then add the plant when the water has drained away. The hole should then be backfilled – and fertiliser added if appropriate. After planting, the top of the soil that came with the plant should be slightly below the ground level around it, to catch rainwater. Once in, the plant should be watered immediately to remove any air spaces around the roots.

- :: Fertiliser should be "native" fertiliser as some fertilisers can contain excessive and harmful nutrient levels for indigenous plants

New tree and shrub plantings should have a plastic tree guard and wooden stakes. This will help protect the plant from browsing by animals and decrease water evaporation.

Planting technique diagram



Tubestock Planting (with treeguard)

Advanced Tree

Tree guards, hardwood stakes and mulch (Marty White)



9. Mulch type and depth

The Landscape Plan should identify the amount and type of mulch to be used. Mulch should be applied to all garden beds to assist in controlling weeds and retaining moisture while plants get established. Various types of leaf litter or wood chip mulches are available, but avoid mulch that utilises tree species from threatened forest communities, such as Red Gum or Jarrah.

It is highly recommended that all weeds, in particular perennial weeds such as Couch Grass, Kikuyu and Oxalis be controlled before mulch is applied to reduce the chance of them continuing to invade garden beds.

Recommended types of mulch include:

- :: Plantation grown timber (pine mulch)
- :: Common local eucalyptus species or 'Euca-Mulch'
- :: Sawmill waste
- :: Recycled garden waste, ensuring it does not contain weeds which may resprout. Organic mulch and compost from recycled garden waste is now produced at various compost facilities. These products are heat treated to inhibit the persistence of weeds. Contact your local garden supply outlet
- :: Recycled timber that has been shredded into mulch
- :: Jute mat – a coarse, thick fabric available in either small squares for individual plants or large rolls to cover entire garden beds

Alternatives, include pebbles and scoria which may be acceptable when used on private property.

Mulch should be applied to a minimum depth of 75mm and replenished to this level annually for the first 2 years of the planting and then as required.

10. Lawn treatment

The landscape plan should explain how lawn areas will be established.

New lawn areas should be established using the seeds of non-invasive grass species. The use of instant turf is discouraged. Instant turf establishment requires a much greater use of water and chemical fertilisers. It requires significant amounts of energy for the movement of topsoil and transport to the site. Instant turfs also commonly use weedy grass species such as Kikuyu and Couch grasses that can invade garden beds and landscaping edges, necessitating on-going maintenance.

While they may take a bit longer to fulfil on-site requirements, direct-seeded lawns that use non-invasive grass species need less energy to establish and maintain.

Weeping Grass
Microlaena stipoides
(Shire of Yarra Ranges)
Kookaburra (Anthony Mann)



Grasses recommended for use in the Shire of Yarra Ranges

Grasses for garden beds and lawns in properties near remnant bushland and other environmentally sensitive areas such as waterways and public reserves with indigenous revegetation

Botanical Name	Common Name	Type	Uses	Characteristics
<i>Bothriochloa macra</i>	Red-leg Grass	native	Coarse lawn	Not frost tolerant
<i>Dicantheum sericeum</i>	Queensland Blue-grass	native	Landscape plantings and rockeries	Hardy and drought tolerant
<i>Microlaena stipoides</i>	Weeping Grass	indigenous	Fine lawn, rough lawn, pasture, revegetation	Shade and drought tolerant, tolerates moderate wear
<i>Themeda triandra</i>	Kangaroo Grass	indigenous	Landscaping, revegetation and rough lawn	Semi-shade tolerant, does not tolerate frequent mowing
<i>Austrodanthonia racemosa</i>	Clustered Wallaby-grass	indigenous	Fine lawn, rough lawn	Works well blended with <i>Microlaena</i>
<i>Austrodanthonia eriantha</i>	Hill Wallaby-grass	indigenous	Lawns in very dry, shallow soil	Tussocky
<i>Austrodanthonia geniculata</i>	Knead Wallaby-grass	indigenous	Fine lawn, rough lawn	Very fine, low growing turf
<i>Joycea pallida</i>	Silvertop (or Red-anther) Wallaby-grass	indigenous	Ornamental, revegetation	Fine, medium to large, hardy tussock with attractive flowers; Hard to get
<i>Poa ensiformis</i>	Sword Tussock-grass	indigenous	Ornamental, revegetation, erosion control	Medium to large, deep green tussock with tall stems, not for very dry sites

Grasses for lawns near less environmentally-sensitive areas

Botanical Name	Common Name	Type	Uses	Characteristics
<i>Festuca arundinacea</i>	Tall Fescue	exotic	General turf, lawns, parks, playing fields	May be weedy near bushland areas
<i>Dicantheum sericeum</i>	Queensland Blue-grass	native	Landscape plantings and rockeries	Hardy and drought tolerant
<i>Agrostis stolonifera</i>	Creeping Bent	exotic	Fine turf for bowling greens, golf courses	Doesn't like compacted soils
<i>Poa pratensis</i>	Kentucky Blue-grass	exotic	General turf, lawns, parks, playing fields	Hard wearing
<i>Austrodanthonia racemosa</i>	Clustered Wallaby Grass	indigenous	Lawns	Works well blended with <i>Microlaena</i>
<i>Microlaena stipoides</i>	Weeping Grass	indigenous	Lawns in very dry, shallow soil	Tussocky



11. Garden bed and lawn edge treatments

Garden beds (and most lawns) should be properly edged to retain top soil and mulch and provide a tidy look. Timber from threatened species including Red Gum, Jarrah and White Cypress Pine is unsustainably harvested and must be avoided unless it can be demonstrated that it is from a recycled or sustainable source.

Garden bed with treated pine edging.

Left to right: Common Correa *Correa reflexa*, Grass Trigger-plant *Stylidium graminifolium*, Bulbine Lily *Bulbine bulbosa*.
(Marty White)

Recommended garden edging includes:

- :: Treated pine
- :: Plantation Sugar Gum
- :: Recycled plastic sleepers
- :: Recycled railway sleepers
- :: Local stone
- :: Recycled brick
- :: Concrete garden edging

The use of black plastic sheets beneath garden beds will not be accepted, as this prevents the soil from absorbing rainwater.

12. Irrigation

Show in the landscape plan what type, if any, irrigation is to be used.

Garden irrigation must be designed in line with current levels of water restrictions. This will have a bearing on what type of manual or automatic irrigation system should be installed and the level to which a garden can be watered.

Stage 3 Water restrictions

- :: No watering lawns
- :: No spray sprinkler or spray watering systems can be used
- :: Manual or Automatic dripper systems and hand-watering can be used at limited times

Stage 4 Water restrictions

- :: Lawns and gardens cannot be watered at any time

More information on water restrictions:

www.ourwater.vic.gov.au

Tips for low water use gardens

- :: Keep lawn areas to a minimum – lawns are very thirsty, accounting for 90% of the water used in Australian gardens. Lawns can be replaced with porous paving, ground cover plants, gardens or outdoor structures such as playgrounds and gazebos
- :: Where possible drought tolerant indigenous plant species that only require watering for establishment should be used in landscaping. Non-indigenous drought tolerant plants should be carefully checked against the environmental weed list as many popular low water use plants like feather grasses and succulents are weedy
- :: Place plants that require more water (e.g. ferns) in cooler more shaded areas of the garden

- :: Group plants together according to their water requirements to make irrigation more efficient
- :: Use mulch or indigenous ground covers to reduce water evaporation from garden beds
- :: Consider the limitations water restrictions put on how gardens are allowed to be watered.

Catching and using water on-site

- :: Install a rainwater tank to collect water off roofs that can be used for watering gardens, washing cars or fighting bushfires
- :: Install a greywater tank and treatment unit for recycling household water for use in the garden. Seek installation and maintenance approval through the Shire's Building, Health and Local Laws department
- :: Use porous paving to allow rainwater to seep into the ground, rather than running off and adding pressure to drains and waterways
- :: Consider integrating a reed bed, rain garden or vegetated swale into your garden or wetland design to help capture and purify stormwater (rain) or wastewater overflow (septic) on site. Design and installation of these systems must be done by professionals to get them right. (A list of appropriate indigenous plants that can be used in reed beds is available on the SYR website. Refer to the Shire's Building, Health and Local Laws department).

Information on appropriate indigenous plants that can be used in reed beds is available – contact the Shire of Yarra Ranges Environment Department.

13. Maintenance program

To ensure the successful establishment and on-going health of your planting, a 24-month maintenance program needs to be included in your Landscape Plan. This should include:

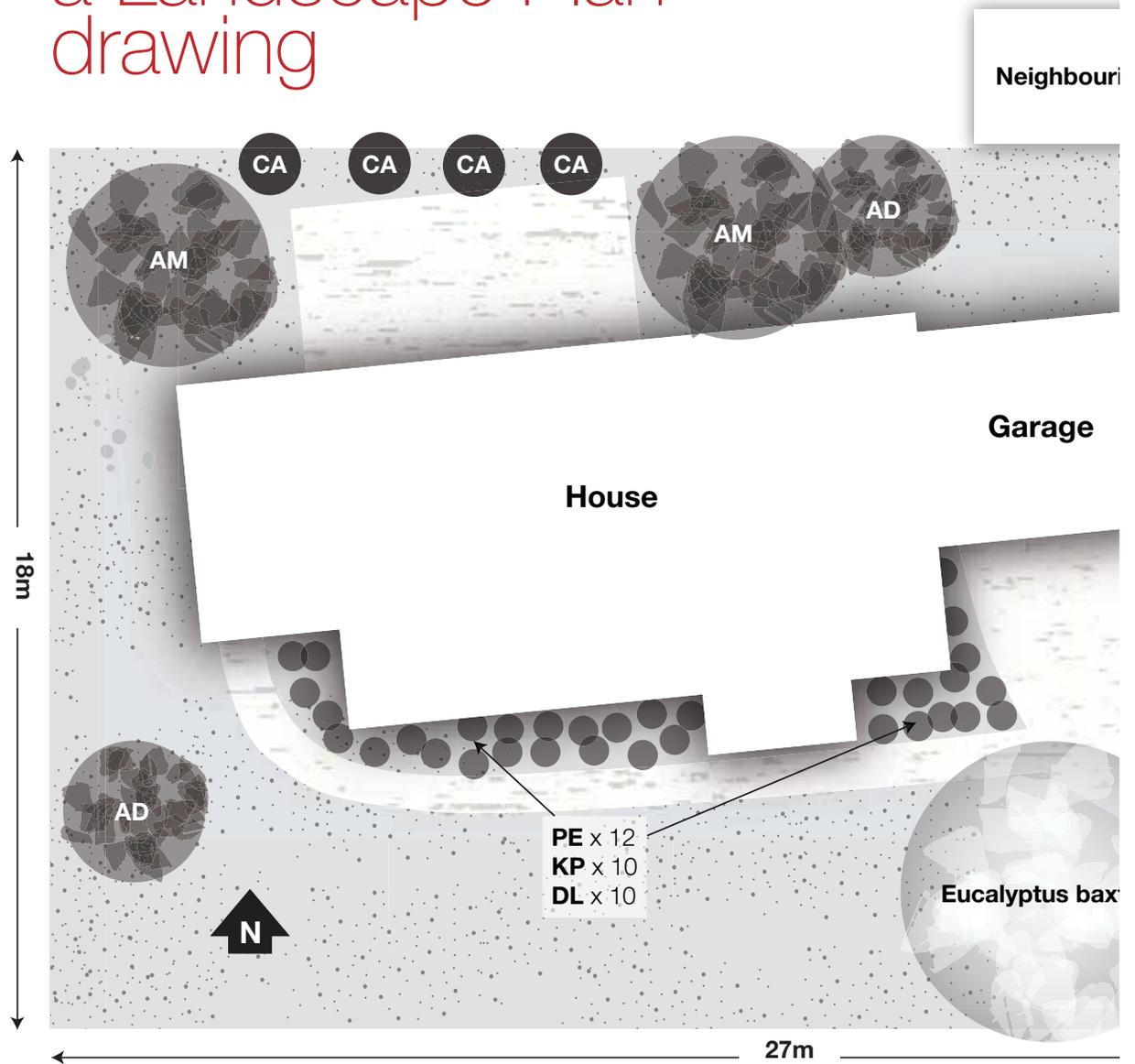
- ∴ Regular weed control in garden beds and inside tree guards
- ∴ Replenishment of mulch annually for the first two years of a planting
- ∴ Replacement of dead plants (with the same approved species) to stop weed invasion on exposed ground
- ∴ The removal and recycling of tree guards when the plants are established and have grown beyond the protection of the guards.
- ∴ Pruning

For more information on water saving devices visit Green Plumbers (www.greenplumbers.com.au) or Melbourne Water (www.melbournewater.com.au)

Left to right:
Burgan
Kunzea leptospermoides
(Simone Orscheg)
Superb Fairy-wren
(Emma Campbell)



An example of a Landscape Plan drawing

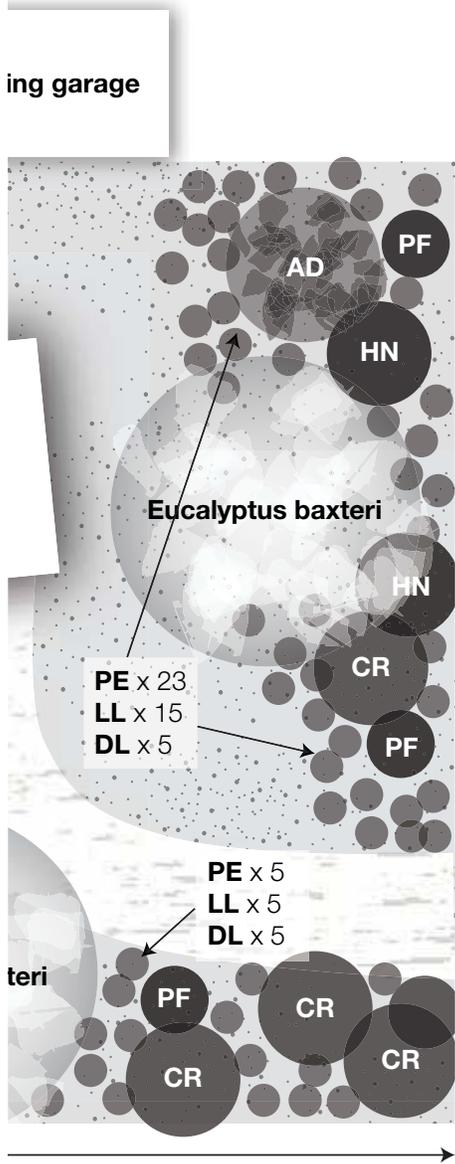


Legend

	Retained existing tree
	Proposed plant
	Lawn
	Paved area

Planting Schedule

Code	Botanical name	Common name	Size at maturity	Pot size	Qty.
AM	<i>Acacia melanoxydon</i>	Blackwood	5-30m x 4-15m	250mm	2
AD	<i>Acacia dealbata</i>	Silver Wattle	6-30m x 5-10m	250mm	3
HN	<i>Hakea nodosa</i>	Yellow Hakea	1-3m x 1-2m	250mm	2
CR	<i>Correa reflexa</i>	Common Correa	0.5-2m x 1-2m	40mm	4
PF	<i>Platylobium formosum</i>	Handsome Flat Pea	0.3-2.5 x 1-2m	40mm	4
CA	<i>Clematis aristata</i>	Old Man's Beard	to 15m	40mm	4
PE	<i>Poa ensiformis</i>	Sword Tussock Grass	0.5 x 1m	40mm	40
LL	<i>Lomandra longifolia</i>	Spiny-headed Mat rush	0.5 x 0.5m	40mm	20
DL	<i>Dianella laevis</i>	Pale Flax-lily	0.3 x 0.5m	40mm	20
KP	<i>Kennedia prostrata</i>	Running Postman	prostrate to 1m	40mm	10



Example Street

Landscape notes

Soil preparation

- :: Lawn areas to be rotary-hoed to a depth of 100mm. Topsoil levels to be approximately 75mm for lawns and approximately 125mm for garden beds.

Lawn areas

- :: Lawn areas are to be established with seed; Weeping Grass *Microlaena stipoides* and Clustered Wallaby Grass *Austrodanthonia racemosa*

Existing vegetation

- :: Trees that are to be retained will be clearly marked as being retained to avoid confusion during associated tree removal.
- :: During construction trees will be enclosed by 1.8m high chain link fence or high-visibility bunting supported by steel posts.

Irrigation

- :: Low water use drip system with timers to all trees and shrubs.

Garden bed edging

- :: Treated pine

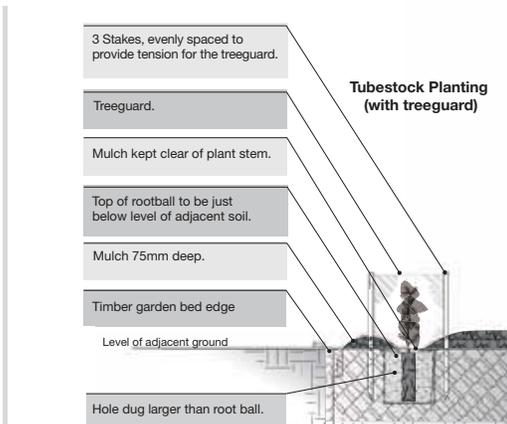
Mulch

- :: Pine mulch 75mm

24 month maintenance plan

- :: Weeding and trimming every 14-21 days
- :: Dead plant replacement as required particularly during establishment period (6 months)
- :: Mulch level to be maintained at 75mm
- :: Tree guards removed when plants are established

Planting technique



Landscape Plan

for
2 Example St, Lilydale

Scale: 1:100

7 April 2010

Assistance with your Landscape Plan

In developing a Landscape Plan it is critical that the landowner obtain the best possible advice. Plan preparation is a specialist task requiring expertise in plant identification and performance, ecological processes, plant establishment and maintenance. It is recommended that you obtain the services of a qualified consultant. Please check your local directory for a consultant with local knowledge or contact the organisations below.

Australian Institute of Landscape Architects (AILA)

49 Exhibition Street
Melbourne VIC 3000
Phone 03 9650 1898
www.aila.org.au

Landscape Industries Association of Victoria

PO Box 706
Mount Waverley VIC 3149
Phone 1300 365 428
www.liav.com.au

Further information about preparing a Landscape Plan and the permit application process can be obtained from the Shire of Yarra Ranges Planning Services Department.

Additional Resources

Indigenous plants

Yarra Ranges Online Maps
http://www.mapimage.net/yarra_ranges/

Simply locate your property in the “property mode” on the map to download the Indigenous Revegetation List for your property. This will give you a list of the plants that are locally indigenous to your property. Additionally the Shire’s *Plant Directory* www.yarraranges.vic.gov.au/plants provides information and photographs of most indigenous species found within the shire in an easy to use database.

Local nurseries: Various nurseries sell plants indigenous to the Shire; a list is available on the Shire’s website at http://www.yarraranges.vic.gov.au/Files/Indigenous_Nurseries.pdf

Weeds

- :: Shire of Yarra Ranges *Environmental Weeds List*
www.yarraranges.vic.gov.au/environment
- :: Weed CRC (www.weeds.crc.org.au)
Weed identification and management techniques
- :: WWF Australia (<http://www.wwf.org.au/publications/ListInvasivePlants/>)
‘National List of naturalised invasive and potentially invasive garden plants’.
- :: WWF Australia and CSIRO (http://www.wwf.org.au/publications/jumping_the_garden_fence/)
‘*Jumping the Garden Fence*: Invasive garden plants in Australia and their environmental and agricultural impacts’.

Sustainable gardening

- :: *Sustainable Gardening in the Shire of Yarra Ranges* - 60 page booklet
- :: *Sustainable Gardening Australia* (www.sgaonline.org.au) - website with advice on sustainable garden design, garden products and plant selections.
- :: Melbourne Water (<http://wsud.melbournewater.com.au/>)
Water Sensitive Urban Design for large scale developments or small scale/one off projects - pamphlet

Wildfire Management

- :: Country Fire Authority (www.cfa.vic.gov.au)



Shire of Yarra Ranges

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