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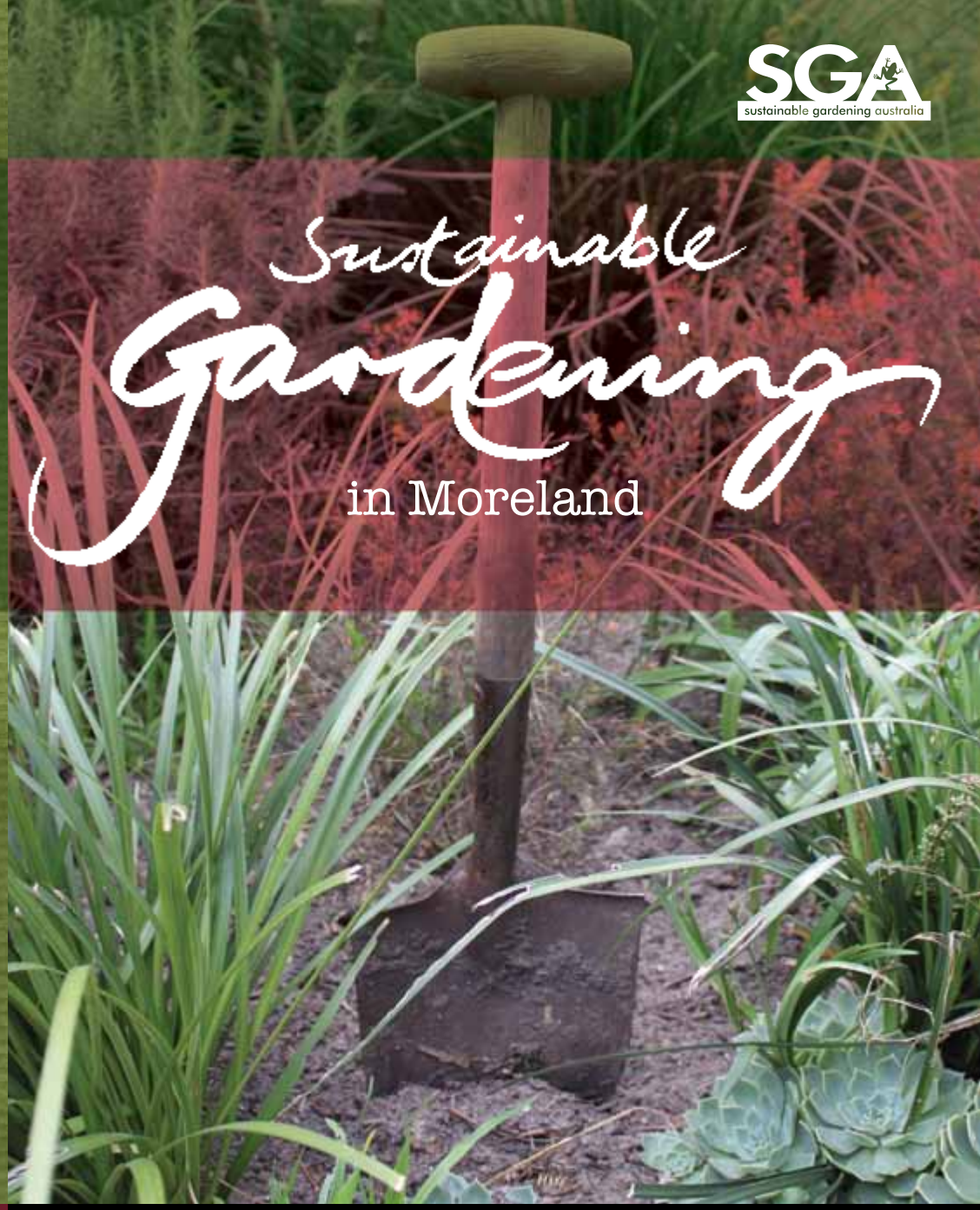

Sustainable Gardening in Moreland

SGA
sustainable gardening australia

www.moreland.vic.gov.au

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Contents

Introduction	2
Garden Design	3
Soil	6
Compost	8
Worm Farming	10
Water	11
Vegetable Gardening	17
Habitat Gardening	18
Local Plants	24
Garden Escapees	32
Sustainable Plants	31
Lawn Alternatives	38
Chemicals	39
Sustainable Products	40

Sustainable Gardening in Moreland is a companion booklet to Home Harvest Moreland; a guide to growing produce. To obtain a copy of Home Harvest contact Moreland City Council.

Introduction

It is easy to create beautiful gardens that suit our local climate and soil and have a low impact on our natural environment. Sustainable gardens are low maintenance as they require less watering, lower application of fertilisers and chemicals, and less mowing and pruning.

Gardening can have a positive benefit to the health of our environment. When we:

- use local plants we provide food and shelter for birds and butterflies
- conserve water in the garden it helps to maintain water levels in our reservoirs
- reduce chemical use in the garden there will be less chemicals in our creeks and streams
- compost our household and garden organic waste it reduces the amount of waste going into landfill and therefore cuts the amount of greenhouse gas produced
- purchase renewable resources for the garden instead of non-renewable resources, it can help protect our old growth forests and river ecosystems.

Gardening is all about creating a beautiful environment. It is important that we create diverse and interesting gardens for our family and friends to come together to work, play and socialise. This booklet has been designed to provide information and inspiration to create your own sustainable garden in Moreland.

Garden Design

To design a sustainable garden you need to decide what space is available, how much time you have to tend to your garden and what type of garden you would like to create.

Do a site analysis:

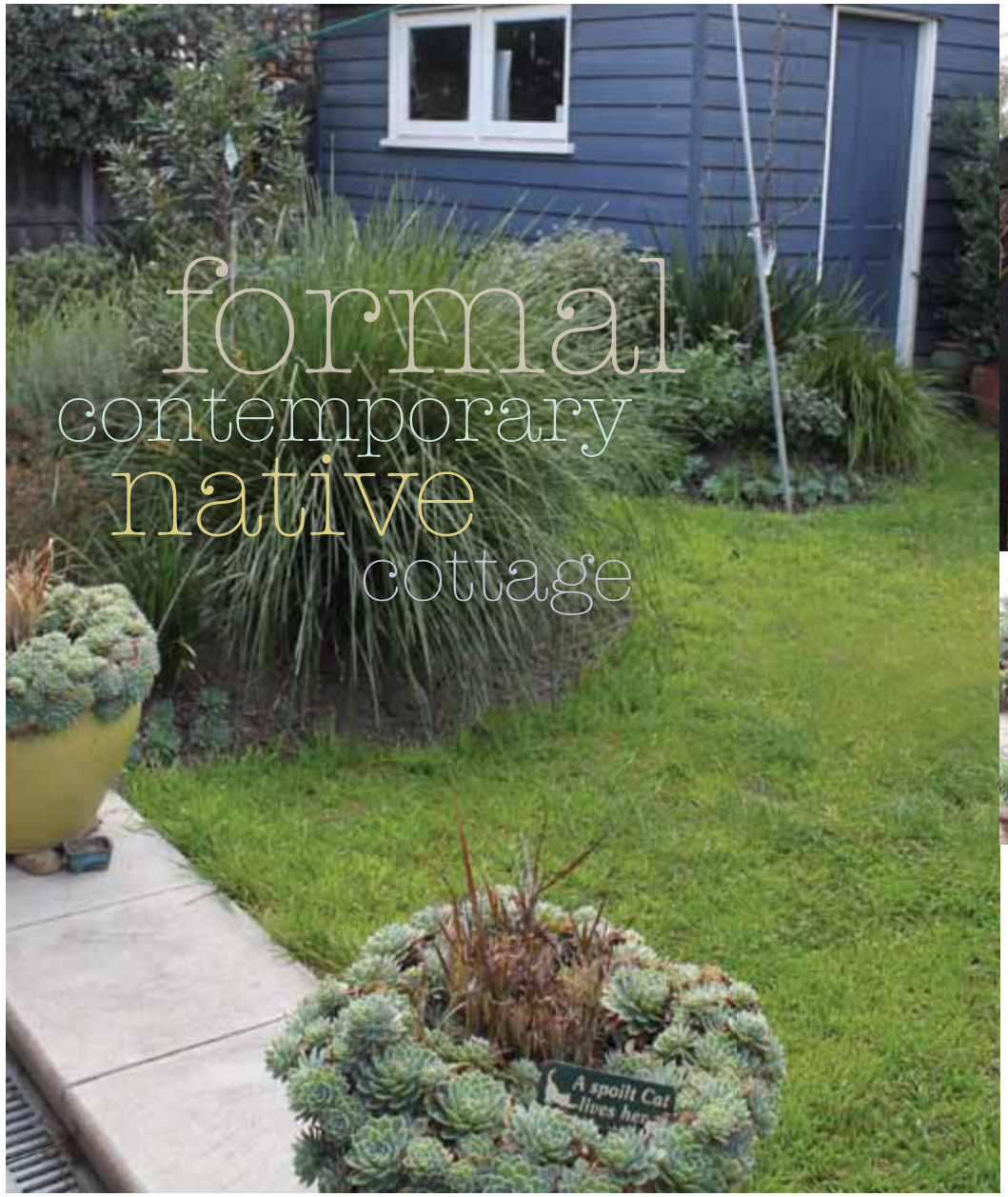
- where are your sun/shade areas in summer and winter?
- do you have any wind tunnels?
- do you have any significant slopes?
- are there any drainage issues?
- where are your water points?
- what are your access issues?

Think carefully about what you would like to incorporate in your garden.

Do you need a shed for tools, a space for a compost bin, an entertainment area, a cubby house, a clothesline, a shady space for reading, a vegie patch or a space to kick the footy with the kids?

What currently exists? Do you have straight garden beds that would be more interesting curved? Do you have a slab of concrete down the back that could be replaced with raised garden beds and granitic sand paths?

What plants do you have in your garden? Have they been grouped according to their water needs?



Think about the style of garden you would like to develop.

What type of garden would you like to create?

Do you want a formal garden, a cottage garden, a native garden, succulent beds or an informal riot of colour and textures? Flick through garden magazines. Check out what is working in your neighbours' gardens.

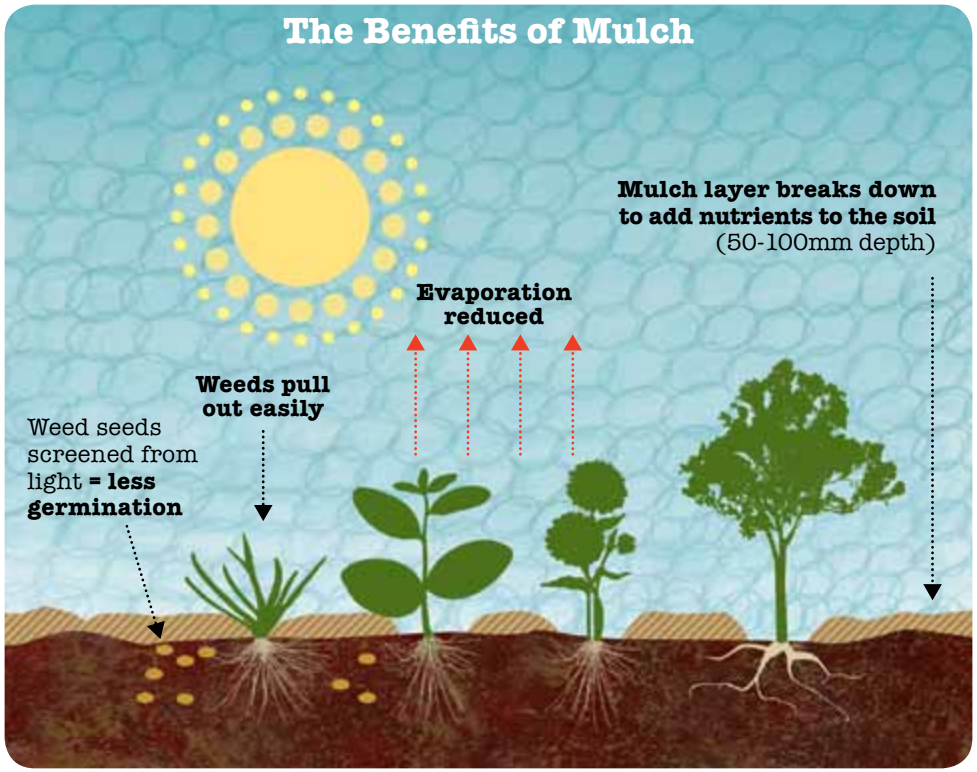
Develop a scaled plan and work out what would comfortably go where. Consider locations that are practical.e.g. a vegie or herb patch near the back door; compost bin down the back in full sun. Decide what needs to be done first. Remember it doesn't all have to be done immediately but rather according to a plan.

Soil

Healthy soil = healthy plants. Soil needs organic matter (leaf litter, compost, manure, grass clippings). Worms break down organic matter to make food for plants, and worm burrows allow air into the soil so that plant roots can breathe. Organic matter needs to be replaced as plants absorb nutrients. If organic matter is not added, the soil becomes hard, like concrete, in the summer and a sticky mess in the winter. In addition, most people want a low maintenance garden. This is much easier to achieve if you look after your soil.

SOIL IMPROVEMENT TIPS

- Soil should be damp before you add mulch, generally spring is the best time to apply mulch, once the winter rains have soaked in.
- Spreading compost over your soil (before mulching) will encourage worms in your garden. Pea straw and Lucerne are good options if you have not mulched the soil for a long time as they break down quickly, returning nutrients to the soil – excellent for the veggie garden! Bark mulch has very few nutrients so don't rely on it to improve your soil.
- Mulches made from reclaimed green waste are an excellent choice as they save water, are long lasting and feed the soil when they break down.
- Mulch should be applied 50-100mm deep, and will need to be topped up every year. Avoid mulch from rare forest types like Red Gum and recycled wooden pellets.
- Soil improvement (such as pea straw placed on the soil surface) is generally only required for exotic plants, vegetables and fruit trees. Most local and native plants like a relatively infertile soil so they prefer a bush mulch or recycled timber mulch on its own without soil improvement.
- When buying new soil for your garden don't just buy topsoil, buy a soil that is mixed with recycled organics or compost.



- Don't cultivate your soil unless it is very compacted after building works. Digging destroys the soil structure, which thereby destroys air holes and drainage spaces.
- When watering use a trigger hose with a spray setting so as not to compact the soil as the water hits. The concentrated pressure of the water stream can close up valuable air spaces.

FURTHER INFORMATION

Handrek, K. (2001) Gardening Down Under, CSIRO Publishing, East Melbourne.

Hodges, Jeff (1996) The Natural Gardener, Angus & Robertson, Melbourne, Victoria.

Roads, M.J. (1989) The Natural Magic of Mulch, Greenhouse Publications, Elwood, Victoria.

For more information on soil types, mulches and compost visit the Sustainable Gardening Australia website and search Fact Sheets at: www.sgaonline.org.au

Moreland Council provides free bush mulch for its residents at a mulch collection point at the rear of the Council Operations Centre at 40-46 South Street, Hadfield. The mulch is recycled from Council tree pruning works. The bays are self service so bring your own trailer or container and tools for collection.

Compost

Compost is what organic material turns into when it has been broken down. Composting your food scraps, grass and garden clippings (organics) can provide you with an excellent source of free garden food and soil improver. Compost can be made at home or is readily available commercially. Aged animal manures and vermicompost (worm castings) are rich in nutrients and are excellent for use in the home vegetable garden. Compost does not have to be dug into the soil. Unless the soil needs to be improved the compost can be laid on top. Mulch layers will also break down over time to add nutrients to the soil.

Composting organics is one of the best things you can do in your garden – as well as creating great fertiliser, it reduces greenhouse gases, saves water and reduces your waste.

Composting organics is one of the best things you can do in your garden

Add
to your compost

- Fruit and vegie scraps
- Coffee grounds
- Tea bags
- Herbs
- Leaves
- Egg shells - crushed
- Pizza containers
- Egg cartons
- Vacuum cleaner dust
- Animal fur
- Onion-outer skin
- Finely chopped citrus peel
- Grass clippings (thin layers 3-4cm)
- Chopped prunings
- Weeds
- Shredded newspapers

Keep out
of your compost

- Meat
- Cat and Dog droppings
- Large citrus peels
- Onion
- Bleached or glossy office paper

BUILDING A LAYERED COMPOST HEAP

1. Build your compost in thin layers (3–10cm).
2. Alternate high nitrogen (food scraps) and low nitrogen (dry leaves) layers. **3 buckets low nitrogen** to **1 bucket high nitrogen.**
3. Use a diversity of materials.

Compost bins can be purchased from your local council, garden centres and hardware stores.

This diagram is an example of the different layers. Alternating kitchen and garden waste layers with an occasional layer of manure works well.

LAYER OF FELT OR HESSIAN TO RETAIN HEAT AND MOISTURE

LOW NITROGEN ..... STRAW AND WATER

HIGH NITROGEN ..... KITCHEN WASTE

..... WATER

LOW NITROGEN ..... GARDEN WASTE

HIGH NITROGEN ..... MANURE

LOW NITROGEN ..... COARSE PRUNINGS

HIGH NITROGEN ..... GRASS CLIPPINGS/PAPER

LOW NITROGEN ..... STRAW OR DRY LEAVES

HIGH NITROGEN ..... SOFT PRUNINGS

LOW NITROGEN ..... COARSE PRUNINGS

LOOSELY FORKED SOIL BASE

Worm Farming

Keeping worms in containers and feeding them fruit and vegetable scraps is an excellent way to reduce the amount of organic waste you place into your garbage bin. Worm farms can be purchased from garden centres and come with instructions, bedding material and a bag of worms. There are specific composting worms that eat food scraps only and are different to the earthworms that you find in your garden. Composting worms are Tiger Worms, Red Wrigglers and Indian Blues. Worms produce rich inexpensive garden fertiliser, called worm castings and worm tea, that is great for your garden. Worm farms are ideal for people living in flats or houses with small backyards.

Food – when starting your worm farm worms may not eat for the first weeks after introduction and then slowly build their appetite. If you are adding more food than the worms can eat your worm farm may become smelly as the food is rotting. Be sure to monitor and adjust the amount of food you are giving your worms.

Moisture – worms need to keep their skin cool and moist to breath. Keep a few layers of moist newspaper over the top of your worms before placing a lid on your worm farm. Do not flood your worms and take care not to leave your worm farm uncovered if it rains. If your worm farm is too wet you may have huge numbers of small vinegar flies. Add some torn up newspaper to absorb the excess moisture.

Temperature – worms stop eating if they are cold and will die if they are too hot. They like a temperature between 18-24°C so it is important to keep your worms in a shady place out of direct sunlight in summer and warm in winter.

Using Your Castings and Worm Tea – castings can be mixed directly into the soil around your plants or before you add seedlings to the soil. Because worm castings will never burn plants you can use as much as you like. Worm tea is a strong nutrient boost for your plants and needs to be diluted 1:10 in water before you add to your plants.

Water

Australia is one of the driest continents on earth. Water use in the garden is a major contributor to high water consumption levels throughout Moreland. By improving the soil and using alternative water sources for the garden such as rain water collected in tanks, storm water directed into the garden, grey water and installing efficient irrigation systems along with good garden design, significant water savings can be made.

Water Tips

1. Plant local (indigenous) native plants to reduce water use and maintenance.
2. Group plants according to their water needs
3. Water the base of plants, not the leaves and use mulch to reduce evaporation and run-off.
4. Use a drip watering system or porous hose which cuts wastage by ensuring that the water only goes where it is needed.
5. Avoid micro-sprays. They waste up to 70% water through drift and evaporation and if the soil is mulched, water will not penetrate the soil.
6. Check and clean your irrigation system every Spring.
7. Position irrigation systems so that water isn't wasted on paths, patios, driveways and buildings.
8. Install garden tap timers to reduce over-watering.
9. Use a rain sensor in your garden so that watering doesn't occur automatically when it is wet.
10. Check the weather forecast to avoid watering before rain.
11. Stop water evaporating before it reaches your plant roots by watering in the early morning - subject to restrictions.

BE INFORMED ABOUT WATER RESTRICTIONS

Details on current Water Restrictions and Permanent Water Saving Rules can be found at www.melbournewater.com.au or call **131 722**

RAINWATER TANKS

A rainwater tank is a good way to reduce the amount of mains (drinking) water used on your garden. Collecting rainwater from the roof will provide water for the garden that is not subject to the same restrictions as mains water.

Rainwater tanks can also be used to directly supply water to the toilet, bathroom, laundry and kitchen. If mains water is connected to a rainwater tank the water must be used in compliance with current water restrictions for garden use. Victorian Government rebates are available for rainwater tanks under some circumstances. Contact your local water retailer for further information or visit www.ourwater.vic.gov.au/ourwater/water_smart_rebates/

The ideal tank size will depend on what the water will be used for, the size of your roof and local rainfall patterns. The larger the tank the more expensive it will be, and obviously the more room it needs.

A smaller tank might be enough to provide 'opportunity' water for occasional use, but is not likely to last through the summer. For greater certainty of supply, and to reduce your water use overall, a larger tank is needed. A tank holding 3000 litres or more is ideal for summer watering. Also consider whether a pump will be needed to move water around your garden, as there will be less water pressure coming from a rainwater tank.

Bladder tank

Passive Water Sensitive Urban Design (WSUD)

Before urbanisation rainfall would slowly percolate into the soil before seeping into our waterways through the ground water table. This process slowed down the rate of flow and improved the quality of water by removing excess nutrients and pollutants. In modern times much of our urban landscape has hard surfaces and is impervious to water. Consequently when it rains a large volume of water rapidly enters our stormwater system carrying pollutants, affecting flow rates and often resulting in the erosion of river beds and banks.

With thoughtful consideration and careful planning you can direct a considerable amount of water onto your garden thereby maximising the use of this valuable resource and reducing the volume of stormwater entering our waterways whilst improving its quality.

POROUS PAVING

If you are putting down paving on pathways, driveways, or courtyards, consider a porous alternative. Commercial concrete grid and modular plastic blocks are available. Consider laying your pavers with spaces in between that will enable water to percolate into the soil. Granitic sand and gravel paths require more maintenance than pavers, but they look fantastic.

LANDSCAPING

By introducing gentle slopes across the surface of patios, driveways and paths you can direct water onto your garden beds.

By creating a small swale (vegetated channel) you can also direct rainwater away from paved areas and onto your garden.

Consider directing runoff into a small wetland that can become a wonderful frog habitat.

spacing between pavers enables water to percolate into the soil

For further information on WSUD visit: www.melbournewater.com.au/wsud

Raingardens

A raingarden is a shallow depression in the ground, natural or man made, that is designed to hold rain that would otherwise turn into stormwater runoff.

Photos courtesy of Melbourne Water

Raingardens are a great way to utilise stormwater, and are often planted with species that are used to extreme dry and wet periods. Raingardens look great and are fantastic for the environment, especially our waterways, as they help to clean and slow the rate of stormwater entering our local rivers and creeks. Raingardens can be built in any shape or size, have different layers of sand, and often have an inorganic mulch like small pebbles or stones (available from most gardening and DIY stores).

Raingardens should be located in a relatively flat place where it will receive runoff. You want to make sure runoff flows towards your raingarden site. However, raingardens are NOT a solution to wet areas with standing water. The garden must have good drainage so that water can soak in within 24 hours after rain. Your raingarden should be at least 30cm (300mm) away from the house, receive full or partial sunlight and not be constructed over a septic system.

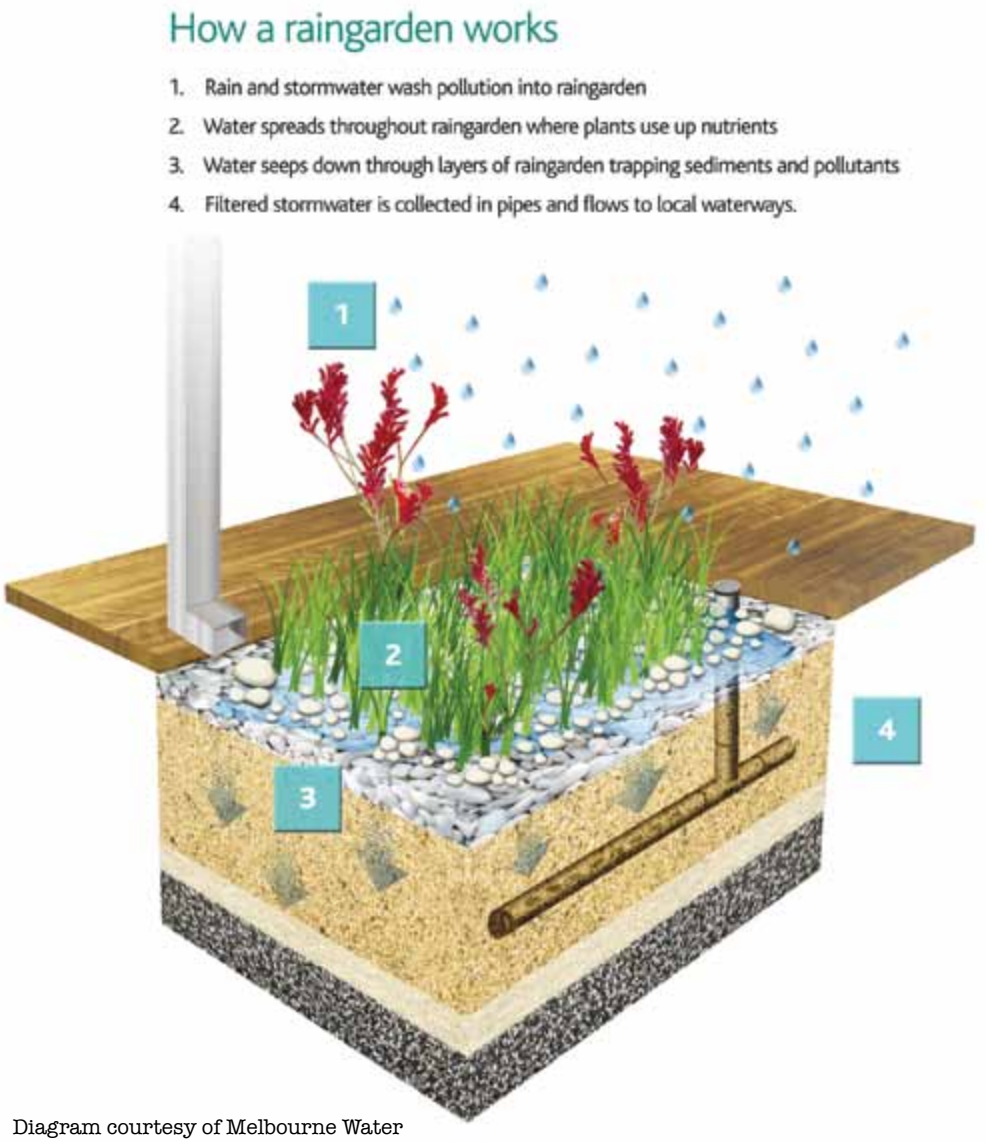


Diagram courtesy of Melbourne Water

For more information of raingardens visit: www.melbournewater.com.au/raingardens

To include your raingarden in the count visit: http://raingardens.melbournewater.com.au/content/register_your_raingarden.asp

GREYWATER

Greywater is domestic wastewater, excluding toilet waste which is sometimes referred to as blackwater. Providing care is taken with the products used (eg. low phosphorous and sodium washing powders) grey water from the laundry (rinse cycles) and bathroom can be used directly in the garden. Untreated greywater can be diverted on a temporary basis to sites within your garden. It can contain a number of micro-organisms such as bacteria and viruses, as well as chemicals from cleaning agents. The continual discharge of greywater can potentially cause problems for your garden. An alternative is to collect greywater in a bucket and apply the water to areas of greatest need. By carefully choosing products you use inside the house such as soaps, detergents and shampoo, you will increase your opportunities for using greywater. To avoid potential health risks greywater from the bathroom and laundry must be collected and used according to EPA and Council regulations.

For further information on greywater re-use, including case studies from around Melbourne, visit:
www.museum.vic.gov.au
and search "Gardening".
www.epa.vic.gov.au
www.sgaonline.org.au

Do:

- Only use wastewater from baths, showers, hand basins and washing machines (final rinse water).
- Only use greywater on the garden and rotate the areas you water.
- Only apply water that the soil can absorb.
- Wash your hands after watering with greywater.

Don't:

- Apply to produce plants
- Use greywater that has any faecal contamination, for example wastewater used to launder nappies.
- Use kitchen wastewater (including dishwashers) due to high concentration of food wastes and chemicals.
- Store greywater for more than 24 hours.
- Let children or pets drink or play with greywater.
- Allow greywater to flow from your property or enter stormwater systems.

STOP:

Using greywater during wet periods.

Using greywater if odours are generated and plants do not appear to be healthy.

Vegetable Gardening

Growing fruit and vegetables commercially uses a large amount of energy and chemicals for heating and cooling, spraying weeds and pests and transporting produce. Fruit and vegetables begin to lose their vitamins as soon as they are picked. After 5 days some have lost 40-50% of their vitamins. Growing your own produce is easier if you have taken the time to improve your soil. Home grown fruit and vegetables are healthy, convenient and an essential part of any sustainable garden.

To learn more about growing your own food, pick up a copy of the Home Harvest booklet from Moreland City Council which has great tips on how to get your home vegie garden going.

For further information of growing produce visit: www.sgaonline.org.au

Habitat Gardening

Attracting native animals to your garden can add extra colour and interest. It can assist pest control by attracting insect predators and contribute to keeping native animal populations viable by providing a pathway for them to commute between bushland areas. All you have to do is provide your garden visitors with food, water and shelter.

BIRDS

Birds are beautiful creatures that are a joy to watch in any garden. In addition, many birds feed on plant pests such as aphids and scale, contributing to non-chemical pest control in the garden! To attract birds to your garden consider the following points.

Red browed Finch

Blue Fairy Wren

Eastern Yellow Robin

Shelter: birds need shelter from predators such as cats and predatory birds. Help protect your feathered visitors by providing prickly or dense plants at various levels in your garden.

Water:
A reliable water source, particularly in summer will attract birds to your garden. If you install a birdbath, place it near dense or prickly plants to provide birds with protection from predators.

Food:
Small birds – Silvereyes, Blue Wrens, Finches, Fantails and Thornbills forage in the lower levels of the garden. They feed on insects and help to keep plant pest numbers down. Native grasses such as Tussock-grass *(Poa labillardierei)*, Kangaroo-grass *(Themeda triandra)* and Wallaby-grass *(Austrodanthonia spp.)* provide an important source of food for grass seed-eating birds such as Red-browed Finches and Crested Pigeons.

Honey Eating birds – Honeyeaters, Red Wattlebirds and Eastern Spinebills are specialist nectar feeders. They use their brush-like tongues to collect nectar from the flowers of Melaleucas, Correas, and Silver Banksias *(Banksia marginata)*. They also like to eat insects as a source of protein.

Kookaburra

Parrots – Rosellas and Lorikeets feed on Eucalypt flowers and seeds, while cockatoos and Galahs refer the seeds of Callistemon *(Callistemon sieberi)* and Eucalypts *(Eucalyptus radiata or E.ovata)*. Red-rump grass parrots feed on grass seeds.

Large birds – Magpies, Kookaburras and Butcherbirds feed on larger insects, small lizards and skinks.

LIZARDS

Most lizards found in the garden are little Grass Skinks that feed on insects and larvae. You may be fortunate enough to encounter a larger lizard such as a Blue-tongue or Shingleback, but these beautiful creatures are not as common as they used to be.

Blue-tongue lizard

To create lizard habitat in your garden, provide the following:

- Tussock grass and hiding spots between rocks and logs for protection.
- A protected sunny spot on a rock, log or brick path.
- Natural leaf mulch to support the insects and larvae they feed on. Avoid using snail bait as Blue-tongue lizards will eat the poisoned snails - use a beer trap instead.

BUTTERFLIES

Butterflies are a welcome addition to any garden and with a few simple design principles are easily attracted.

Australian Painted Lady

Nectar traps: Colourful, massed flower beds draw butterflies in and keep them happily moving through the garden. They are attracted to a large range of coloured flowers, in particular blue, yellow and red.

Flowers: Simple, flat flowers make it easier for butterflies to extract nectar. Double flowers (multiple layers of petals) are difficult for butterflies to feed from, but simple flowers like Daisies, Pelargoniums *(Pelargonium australe)*, Bluebells *(Wahlenbergia communis)*, Saltbush plants *(Atriplex semibaccata),* and Pea flowers *(Bossiaea prostrata)* are more suitable.

Bursaria Spinosa

Position: Butterflies use the early morning sun to warm themselves and retreat to cooler, shadier places during the heat of the day. Providing a sheltered position that combines warmth and protection is ideal. Also consider adding flat rocks for butterflies to bask and to court each other. Mud puddles or a dish of damp sand can provide them with water and salts.

Host plants: Incorporate host plants for butterflies to lay eggs. Caterpillars are generally small and shy, and won't devastate the garden. Popular indigenous plants include Bursaria (*Bursaria spinosa*) and Mat-rush *(Lomandra longifolia)*, and grasses such as Kangaroo-grass *(Themeda triandra)*, Wallaby-grass *(Austrodanthonia spp.)* and Tussock-grass *(Poa labillardierei)*.

FROGS

What could be more interesting than watching tadpoles grow into frogs and then being serenaded by their calls at night? Frogs also help control pests in your garden as they eat flies, mosquitoes, slugs, snails and even spiders.

In order to enjoy frogs in your garden you will need to provide a pond with certain features, but you'll also need to live near a frog population to attract them from.

Water Ribbons

A frog pond can incorporate one or all of the requirements for each part of the frogs' lifecycle:

- Damp bog zone for adult frogs.
- Shallow water zone for laying eggs.
- Deep zone of at least 30cm for tadpoles.

Your frog garden should also have:

- Soft, thick vegetation that droops into the water, for shelter and protection.
- Rocks, logs, bark and leaf litter.
- Mostly shade.
- Sloping sides for frogs to crawl out.
- Been made from non-toxic materials (concrete ponds will need to be sealed and plastic ponds be made of food-grade plastic).
- Food plants for tadpoles (and they will eat them, so don't put your prize waterlily in there).

Frog-friendly plants:

Tufting plants – Pale Rush *(Juncus pallidus)* or Black-anther Flax-lily *(Dianella admixta)*.

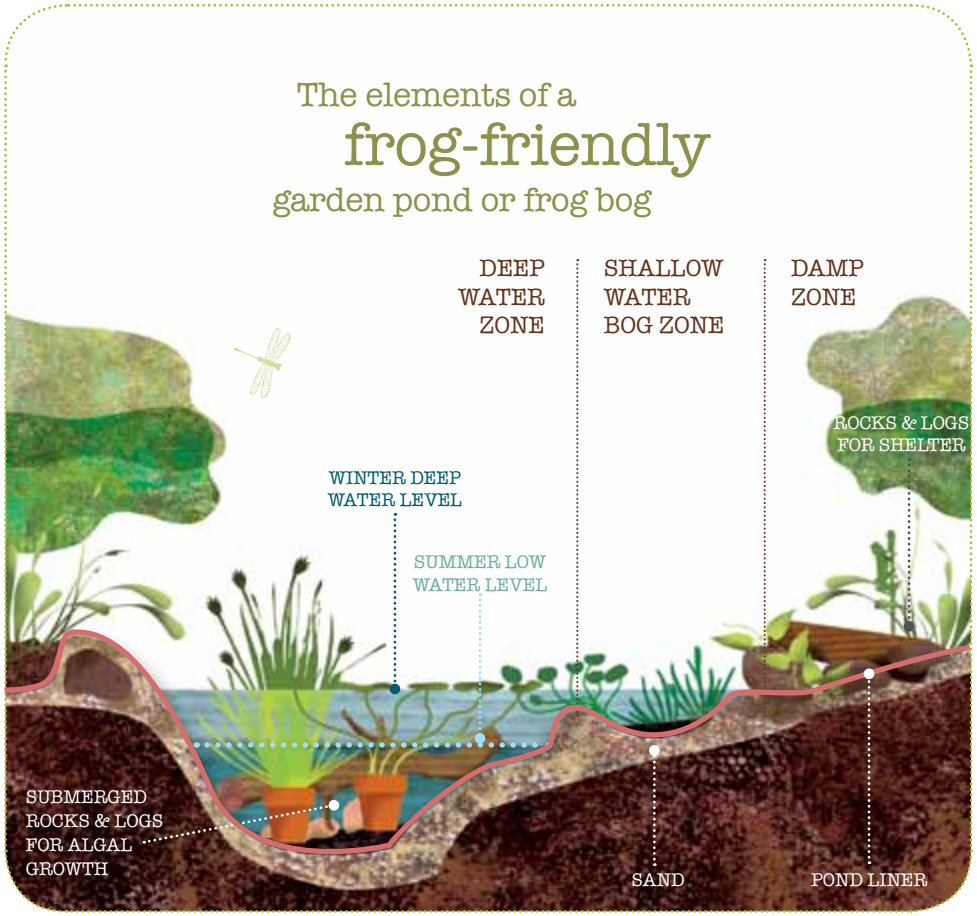
Bog plants - Common Sedge *(Carex tereticaulis)*, Knobby Club-rush *(Ficinia nodosa)*, Common Rush *(Juncus australis)* and Austral Gypsywort *(Lycopus australis)*.

Water plants – Common Nardoo *(Marsilea drummondii)*, Purple Loosestrife *(Lythrum salicaria)*, Tassel Sedge *(Carex fascicularis)* and Water Ribbons *(Triglochin procerum)*.

Perons Tree Frog

Things to avoid:

- Fish – most fish will eat tadpoles.
- Fountain pumps – tadpoles and eggs can be killed by them.
- Cats and dogs – protect the frog area of your garden with sharp, spiky plants.
- Chemicals – frogs eat insects, so you don't want to spray them. Frogs are very sensitive to chemicals which can be absorbed through their thin skin.
- Allowing floating plants such as Duckweed or Azolla to cover the top of the pond. This can result in reduced oxygen levels for tadpoles.
- Cleaning out the pond too often – tadpoles need some material to be breaking down in the pond water to provide food for them.
- Collecting tadpoles from the wild is illegal in most parts of Australia.



MAMMALS

As the human population grows urban development has replaced natural habitat. Our unique native animals have either adapted or suffered a dramatic decline due to loss of habitat, traditional food, disruption of breeding cycles or become victims of road kill. While you may be incredibly lucky to encounter a koala or echidna, you are more likely to have possums and bats as regular visitors.

Brushtail Possum

Possums: If you would like to attract possums, or particularly the more vulnerable animals such as the Sugar Glider to your garden, you could plant Banksias, Callistemons, Wattles, Teatrees and Eucalypts. Put in some appropriate nesting boxes to provide a safe, warm haven. It is important not to feed wildlife as human food can be dangerous and cause serious dietary imbalance. Common Brush Tail and Ringtail Possum populations have adapted magnificently to the urban environment. With an abundance of highly nutritious food and great nesting sites in the roofs of buildings, their populations are higher in the urban areas than in the bush.

If possums are becoming a problem you may try the techniques recommended by the Department of Sustainability and Environment (DSE):

- Build a floppy fence around the garden. Use 80cm wide, heavily galvanised chicken wire, bury the bottom 20cm and support the remainder on vertical lengths of flexible, high-tensile fencing wire. Bend the wire to curve the upper section outwards. When the possum attempts to climb the fence it will bend over and then spring back.
- Use collars (strips of hard plastic) to protect fruit trees.
- Repellents – some commercial products are available aimed at deterring possums from damaging plants through smell, taste and/or feel which are thought to be unpleasant to possums. Some people use home made chilli and garlic sprays. A recent study by Deakin University showed that these repellents have mixed results.
- For more information, visit www.dse.vic.gov.au and search 'possums'.

Plant Selection

Plant selection is a very important component of the garden design which affects how your garden looks and also how it contributes to the wider environment. Factors that will guide plant selection for your garden include soil type, drainage patterns, aspect (i.e. full sun, part shade, and shade) and local climate. Also consider what you are planting for, ie. a shade tree for summer or something that will produce fruit. For best results, plants should be grouped together according to their sun/shade, water and fertiliser needs. Visit a garden centre to find a plant to suit the position you have in mind, not the other way round.

Local (indigenous) plants are well suited to the local soil and climate conditions, do not require large amounts of nutrients and once established, require little water. There are many beautiful plants indigenous to Moreland. See the list on page 31.

There is also a great range of native and exotic plants available in garden centres but you should always avoid using plants that are known environmental weeds. Two thirds of the weeds found in Victoria's natural environment (parks, and along waterways and coasts) are actually 'garden escapees'. Their seeds are spread from gardens by the wind, birds and animals or by people dumping garden cuttings into the bush and waterways. Weeds compete with our local plants for light, nutrients and water. Before too long they can replace local plants, leaving native animals without food or habitat. As gardeners we need to know which plants can escape. Refer to page 22 for a list of plants considered to be 'garden escapees' in the Moreland area and consider replacing these with a less invasive plant.

Sustainable Gardening Australia has an accreditation program for nurseries which ensures they are up to date with the latest information and do not sell environmental weeds. See list of certified garden centres in Moreland on the back insert of this booklet or visit www.sgaonline.org.au for a complete list.

Moreland Local Plant Guide

The following list of species make great plants for gardens in Moreland as they are indigenous to the area and provide habitat for native wildlife. Indigenous plants are also the most waterwise plants for your garden as they have adapted to the local climate and soil conditions so require less maintenance. See the list of nurseries stocking plants indigenous to Moreland at the back of this booklet for a more comprehensive range of local species.

KEY:

Some Of These Plants Provide Habitat For:

BUTTERFLIES LIZARDS FROGS BIRDS

Suitable As Hedge HHH

Height

Width

Full Sun

Part Shade

Full Shade

Drought Tolerant

Needs Seasonal Water

GROUND COVERS

	NAME	REQUIREMENTS	FEATURES	HABITAT
	Nodding Saltbush *(Einadia nutans)*	↕ 30cm ↔ 1m Excellent for dry sites.	Grey-green foliage. Attractive small red berries after flowering. A useful groundcover for rockeries.	
	Kidney Plant *(Dichondra repens)*	↕ prostrate ↔ 30cm Well-drained soil.	An excellent lawn substitute in moist, shady areas where traffic is very light.	
	Running Postman *(Kennedia prostrata)*	↕ prostrate ↔ 2m Accepts most soils, but avoid poor drainage.	Attractive as a ground cover, in tubs, hanging baskets, cascading over rocks, walls and under trees.	
	Native Violet *(Viola hederacae)*	↕ prostrate ↔ 1m Well-drained soil.	Ideal for shaded areas of the garden.	
	Inland Pigface *(Carpobrotus modestus)*	↕ prostrate ↔ 1m Well-drained soil.	Perennial succulent with trailing foliage. Bright pink flowers in spring and summer.	
	Ruby Saltbush *(Enchylena tomentosa)*	↕ prostrate ↔ 1m Well-drained soil.	Hardy plant great for rockeries.	

SMALL PLANTS

	NAME	REQUIREMENTS	FEATURES	HABITAT
	Basalt Daisy *(Brachyscome basaltica)*	↕ 20cm ↔ 1m Prefers moist soil but will tolerate dryness once established.	Grows well in a pots. Fast growing. Light pruning after flowering.	
	Common Everlasting *(Chrysocephalum apiculatum)*	↕ 130cm ↔ 60cm Well-drained soil.	An excellent rockery plant with contrasting silver foliage. Prune regularly to encourage new growth.	
	Tufted Bluebell *(Wahlenbergia communis)*	↕ 30cm ↔ 15cm Moist, well-drained soil.	Looks great in containers or when planted amongst grasses.	

CLIMBERS

	NAME	REQUIREMENTS	FEATURES	HABITAT
	Purple Coral Pea *(Hardenbergia violacea)*	↕ prostrate or climber ↔ 3m Well-drained soil.	Climbing plant useful as a screeening plant. Grows well in pots.	
	Small-leafed Clematis *(Clematis microphylla)*	↕ prostrate, ↔ 3m Well-drained soil.	A fast growing climber useful for drier sites. Attractive fluffy seed heads.	

GRASSES & TUSSOCK PLANTS

	NAME	REQUIREMENTS	FEATURES	HABITAT
	Black-anther Flax-lily *(Dianella admixta)*	80cm ↔ 50cm Well-drained soil.	Hardy, easily maintained plant. Ideal for growing close to trees.	
	Common Tussock-grass *(Poa labillardierei)*	50cm ↔ 40cm Adapts to moist or slightly dry soil.	Fast-growing grass. Lawn alternative. Attractive contrasting plant.	
	Kangaroo-grass *(Themeda triandra)*	prostrate ↔ 30cm Adaptable to most soils.	Attractive tufting grass.	
	Spiny-headed Mat-rush *(Lomandra longifolia)*	1m ↔ 1m Moist, well-drained soil.	A hardy, structural plant.	
	Wallaby-grass *(Rytidosperma spp.)*	30cm ↔ 1m Well-drained soil.	Tussocky grass with attractive foliage.	
	Spear-grass *(Ausrostipa spp.)*	20cm ↔ 30cm Well-drained soil.	Beautiful large, open flowerheads in summer.	

SMALL SHRUBS

	NAME	REQUIREMENTS	FEATURES	HABITAT
	Gold Dust Wattle *(Acacia acinacea)*	HHH 2m ↔ 2m Adaptable to most soils.	A good low screening plant. Suitable for large pots.	
	Rock Correa *(Correa glabra)*	HHH 1.5m ↔ 2m Well-drained soil. Ideal for dry sites.	Establishes well under existing trees. Responds well to a light pruning.	
	Hop Goodenia *(Goodenia ovata)*	HHH 2m ↔ 1m Prefers damp soil.	Fast growing. Responds well to pruning.	
	Rosemary Grevillea *(Grevillea rosmarinifolia)*	2m ↔ 2m Well-drained soil. Excellent for dry sites.	Pruning will encourage more compact growth. Grows well in large pots.	
	Austral Indigo *(Indigofera australis)*	2m ↔ 2m Well-drained soil. Lime tolerant.	Needs regular pruning for shaping.	
	Wedge-leaf Hop-bush *(Dodonaea viscosa spp. cuneata)*	HHH 2m ↔ 1m Well-drained soil. Excellent for dry sites.	Very hardy shrub. Excellent screening plant. Responds well to pruning.	

TALL SHRUBS

	NAME	REQUIREMENTS	FEATURES	HABITAT
	Sweet Bursaria *(Bursaria spinosa)*	10m ↔ 5m Well-drained soil. Excellent for dry sites.	Bushy forms make excellent screening plants.	
	Golden Spray *(Viminaria juncae)*	8m ↔ 3m Well-drained soil. Excellent for dry sites.	Fast-growing tree. Pruning whilst young encourages denser growth. Good screening and windbreak tree.	

TREES

	NAME	REQUIREMENTS	FEATURES	HABITAT
	Silver Banksia *(Banksia marginata)*	10m ↔ 5m Well-drained soil. Excellent for dry sites.	Bushy forms make excellent screening plants.	
	Lightwood *(Acacia implexa)*	8m ↔ 3m Well-drained soil. Excellent for dry sites.	Fast-growing tree. Good screening and windbreak tree.	
	Drooping Sheoak *(Allocasuarina verticillata)*	8m ↔ 6m Well-drained soil.	Fast growing, graceful tree.	

Sustainable Plant List

These plants are not indigenous but are good for the garden as they are all hardy under variable conditions but are not known to go weedy.

COMMON NAME	BOTANICAL NAME	FORM
Catmint	*Nepeta cultivar*	Groundcover
Creeping Boobialla	*Myoporum parvifolium*	Groundcover
Salvias	*Salvia species*	Herb
Australian Cranesbill	*Geranium solanderi*	Herb
Flax	*Phormium cultivars*	Strap Foliage
Agave	*Agave species*	Strap Foliage
Yucca	*Yucca species*	Strap Foliage
Kangaroo Paw	*Anigozanthos sp.*	Strap Foliage
Lavender Cotton	*Santolina chamecyparissus*	Perennial
Penstemon	*Penstemon cultivars*	Perennial
Correa	*Correa cultivars*	Small Shrub
Hebe	*Hebe 'Blue Gem'*	Small Shrub
Heliotrope	*Heliotropium arborescens*	Small Shrub
Rock Thryptomene	*Thryptomene saxicola*	Small Shrub
Rosemary	*Rosemarinus officinalis*	Small Shrub
Cushion Bush	*Leucophyta brownii*	Small Shrub
Emu Bush	*Eremophilia species*	Medium Shrub
Coastal Rosemary	*Westringia fruiticosa*	Medium Shrub
Plumbago	*Plumbago auriculata*	Medium Shrub
Weeping Bottlebrush	*Callistemon viminalis*	Medium Shrub
Tea Tree	*Leptospermum 'Burgundy'*	Tall Shrub
Grevillea	*Grevillea 'Ivanhoe'*	Tall Shrub
Bottlebrush	*Callistemon 'King's Park Special'*	Small Tree
Crepe Myrtle	*Largersteromia 'Yuma'*	Small Tree
Willow Myrtle	*Agonis flexuosa*	Medium Tree

Moreland Garden Escapees

The following list of species pose a significant threat to the natural values within Moreland. These species can smother, choke, replace and out-compete compete native vegetation in Moreland's environment. Please do not plant these species. If you have them in your garden, we encourage you to remove them.

Privet *(Ligustrum spp.)*

WEED CONTROL TECHNIQUES

Hand Pull

hand removal of plant, most suitable for small plants and seedlings.

Cut & Paint

cut stem and immediately paint an appropriate herbicide to the stump.

Solarisation

covering plants with a plastic sheet with buried edges for a four-week period. This allows the heat from the sun to kill off the plants underneath.

Mulch

smothering plants with a thick layer of appropriate mulch. Beware that the chosen mulch is weed-free.

Scrape & Paint

scrape the outer layer of an area of the plant stem and immediately apply an appropriate herbicide. Most appropriate on vine weeds.

Spray

apply herbicide to the surface of the foliage.

Drill & Fill

use a drill or other small tool to cut into the outer bark layer and apply an appropriate herbicide to the soft layer underneath the bark.

DISPERSAL KEY:

- **Wind**
- **Water**
- **Birds**
- **Animals**
- **Dumped Garden Waste**
- **Contaminated Soil**
- **Vehicles**

If using chemicals to control weeds remember:

- Use chemical control only if non-chemical control is unsuitable.
- Do not spray in high temperatures or if rain is forecast within 24 hours.
- Spray when plants are actively growing.
- Some chemicals require a Chemical Users Permit.
- Always read the label on the product and follow the directions for application rates, safety procedures and handling.

CLIMBERS AND CREEPERS

	NAME	FEATURES	DISPERSAL	CONTROL
	Blue Periwinkle *(Vinca major)*	Evergreen creeper that forms dense mats that smother local plants.		
	Morning Glory *(Ipomoea indica)*	Fast growing climber that smothers bushland.		
	Bluebell Creeper *(Billardiera heterophylla)*	Evergreen climber grows to 2-3 m tall and strangles plants it grows over.		
	English Ivy *(Hedera helix)*	Fast climber can grow to 30m up trees or along the ground to form dense carpets.		
	Wandering Creeper *(Tradescantia albiflora)*	Evergreen creeper that forms dense mats to 60cm deep.		
	Cape Ivy *(Delairea odorata)*	Perennial climber and dense ground cover to 30 cm thick.		

GRASSES AND HERBS

	NAME	FEATURES	DISPERSAL	CONTROL
	Gazania *(Gazania spp.)*	Perennial herb to 30cm. Variable flower colours, spring-autumn.		
	Arum Lily *(Zantedeschia aethiopica)*	Forms large spreading clumps with distinctive white flowers Aug-Feb.		
	Agapanthus *(Agapanthus praecox ssp. Orientalis)*	Evergreen herb in leafy clumps to 60cm. White or mauve flowers Nov-Feb.		
	Bulbil Watsonia *(Watsonia meriana cv Bulbilifera)*	Leaves and flowers die back each year only to grow back in a dense clump.		
	Fountain Grass *(Pennisetum setaceum)*	Can grow up to 1m tall. Distinctive flowerheads from Jan-April.		
	Pampas Grass *(Cortaderia spp)*	Huge perennial grass growing to 2-6m tall with large cream flower plumes Mar-May.		

SHRUBS

	NAME	FEATURES	DISPERSAL	CONTROL
	Flax-leaf Broom *(Genista linifolia)*	Evergreen shrub to 3m. Yellow flowers Jul-Nov.		
	English Broom *(Cytisus scorparius)*	Large shrub to 4m usually loses leaves over winter. Yellow flowers Oct-Dec.		
	Cherry Plum *(Prunus cerasifera*	Deciduous large, spreading shrub. Green to purple leaves with white or pink flowers Oct-Dec.		
	Mirror Bush *(Coprosma repens)*	Evergreen shrub to 8m tall. Shinny green leaves.		
	Cotoneaster *(Cotoneaster spp)*	Evergreen, multi-stemmed shrub with white flowers Oct-Jan. Clusters of bright red berries.		
	Privet *(Ligustrum spp.)*	Large evergreen shrub.White flowers spring–summer. Fleshy green-purple berries dry to black.		

SHRUBS

	NAME	FEATURES	DISPERSAL	CONTROL
	Prickly Pear *(Opuntia spp.)*	Succulent up to 5m. tall. Large spines. Edible fruit.		
	Hawthorn *(Crataegus monogyma)*	Deciduous thorny shrub to 10m tall. White flowers Oct-Dec. Red berries.		

TREES

	NAME	FEATURES	DISPERSAL	CONTROL
	Desert Ash *(Fraxinus angustifolia)*	Glossy bright green leaves with serrated edges. Distinctive winged seed capsules.		
	Sweet Pittosporum *(Pittosporum undulatum)*	Dark green leaves, small creamy-white flowers. Distinctive, yellow fleshy fruit.		
	Cootamundra Wattle *(Acacia baileyana)*	Bushy tree to 10m tall. Distinctive grey leaves. Flowers from Jun-Sept.		

Lawn Alternatives

Traditional turf lawns are often high water users. However if you do prefer a traditional lawn there are drought tolerant mixes available. These may include Kikuyu and Couch but should be avoided if you live next to a bushland reserve or waterway. If you are looking for an attractive lawn alternative, that can withstand periods of low water supply and less ongoing maintenance, you could consider a range of native grasses or plants depending on the look you are trying to achieve.

Native grasses – one of the most successful native grasses for creating the look of a traditional lawn is the native Weeping Grass *(Microlaena stipoides)*. It can be mown regularly and will grow well in a wide range of soils. Weeping Grass is drought, frost and shade tolerant, but does not cope with heavy traffic or dog urine. Excellent for a front lawn. Can be grown from seed or plugs.

Weeping Grass

Ground cover plants - use ground cover plants that form dense mats, don't require mowing and perform well in shade. Examples include: Creeping Saltbush *(Atriplex semibaccata)*, Climbing Saltbush *(Einadia nutans)*, Kidney Plant *(Dichondra repens)*, Creeping Boobialla *(Myoporum parvifolium)*, Native Mint *(Mentha diemenica)*, and Australian Bindweed *(Convolvulus erubescens)*.

Kidney Plant

Native wildflowers – planting out a mass of native wildflowers to create a meadow look can be spectacular, particularly in spring and summer. This works very well as a front lawn alternative. Examples include: Tufted Bluebell *(Wahlenbergia communis)*, Chocolate Lily (*Arthropodium strictum*), and Bulbine Lily *(Bulbine bulbosa)*.

Tufted Bluebells and Straw Flower

Chemicals

Pesticides, herbicides and fertilisers can be transferred from our home gardens to the natural environment. Sprays can drift in the wind and powders wash into waterways. Strong pesticides and herbicides can kill native insects, plants and animals, while the application of too much fertiliser may lead to extra nutrients in our waterways, contributing to blue-green algae outbreaks harmful to animals and sometimes people.

CHEMICAL TIPS

1. Many insects in the garden such as ladybirds are good guys that will eat pests such as aphids. If you overuse chemicals you may also kill beneficial insects and make your pest problem harder to control. Multi-sprays in particular kill anything they touch.

2. Remove pests by hand or use natural alternatives such as pyrethrum and garlic spray to control pests. Even natural alternatives should be used with care in controlled doses.

3. Too much fertiliser makes plants produce a lot of leafy growth that often becomes a target for pests.

4. Organic fertilisers such as compost, manures, seaweed and fish emulsion break down more slowly than synthetic (chemical) fertilisers and generally match the rate at which plants need the nutrients. Synthetic fertilisers break down quickly and can burn plant roots.

5. Organic fertilisers improve soil structure meaning the soil is better able to hold water and make it available to plants. Synthetic fertilisers add nothing to the soil structure and tend to move easily from the soil after heavy rain or watering.

6. When a plant looks sick the worst thing you can do is feed it synthetic fertiliser.

7. Sterilise your secateurs with methylated spirits between pruning plants to prevent the spread of disease.

Sustainable Product Selection

When buying products for the garden we often don't think about where they have come from. For example, River Red Gum trees grow in woodlands which are part of an intricate ecosystem that supports native fauna. Red gum timber is used to produce items such as bark chips, tomato stakes and railway sleepers – harvesting this product is unsustainable. With some thought we can support more environmentally sound practices through the products we choose for our gardens and homes.

ATERNATIVE PRODUCT TIPS

1. Visit www.timbershop.org to find out which timbers are sustainable. While some outdoor furniture companies claim teak is plantation-harvested in Asia, this magnificent tree is a rainforest plant that cannot be grown in plantations.

2. Grass trees, tree ferns and native orchids may have been sourced illegally from the forest. Plants should be sold with a government tag stating they have been legally collected.

3. Make sure you ask where mulch has come from as some are sourced from the logging of old growth forests or contain weed seeds.

4. Ceramic pots fired using gas and produced locally have a lower environmental impact than those fired using coal or wood and transported from overseas.

5. River pebbles may have been sourced from waterways in developing countries such as China and India. This destroys the local ecosystem and causes silt to wash down stream to communities who rely on the river for drinking and washing. Use locally crushed rock and granitic gravel.

SUSTAINABLE SHOPPING TIPS

1. Ask where a product comes from and avoid buying unsustainable products.

2. Use sustainable products such as secondhand bricks, recycled timbers, or recycled plastic sleepers.

3. Take your own plastic bag or canvas bag to a garden centre to carry home products and plants.

4. Reuse your plastic plant pots or return them to a garden centre pot recycling bin.

Reference and further advice

SGA Certified Nurseries:

www.sgaonline.org.au

CERES
Cnr Roberts and Stewart Sts,
East Brunswick. Vic 3057
Ph: 9389 0100

VINC
Yarrabend Rd, Fairfield
Ph: 03 9482 1710

For advice on indigenous plants:

Western Plains Flora
628 Wildwood Road, Wildwood
Ph: 03 9740 3178

Merri Creek Management Committee
2 Lee Street, Brunswick East.
Ph: 03 9380 8199

Useful links:

Department of Sustainability and Environment
www.dse.vic.gov.au

Australian Plants Society (Keilor Plains Group)
www.apskeilorplains.org.au/

Melbourne Water
www.melbournewater.com.au

Sustainability Victoria
www.sustainability.vic.gov.au

Weed Society of Victoria
www.wsvic.org.au

Further reading:

Australian Plants Society Maroondah (2001) **Flora of Melbourne**, Hyland House, Melbourne.

Blood, K (2001) **Environmental Weeds: a Field Guide for SE Australia,** CH Jerram and Associates, Melbourne.

Costermans, L.F (1933) **Native Trees and Shrubs of South-Eastern Australia,** Lansdowne Publishing Pty Ltd, Sydney.

Jones, D.L. (1944) **A Field Guide to the Native Plants of Melbourne,** Bloomings Books, Melbourne.

Marriot, N and J (1998) **Grassland Plants of South-Eastern Australia,** Bloomings Books, Melbourne.

APS Keilor Plains Group (1995) **Plants of Melbourne's Western Plains: A Gardener's Guide to the Original Flora.**

Libraries:

For branch locations and opening hours visit **www.moreland.vic.gov.au/moreland-libraries**