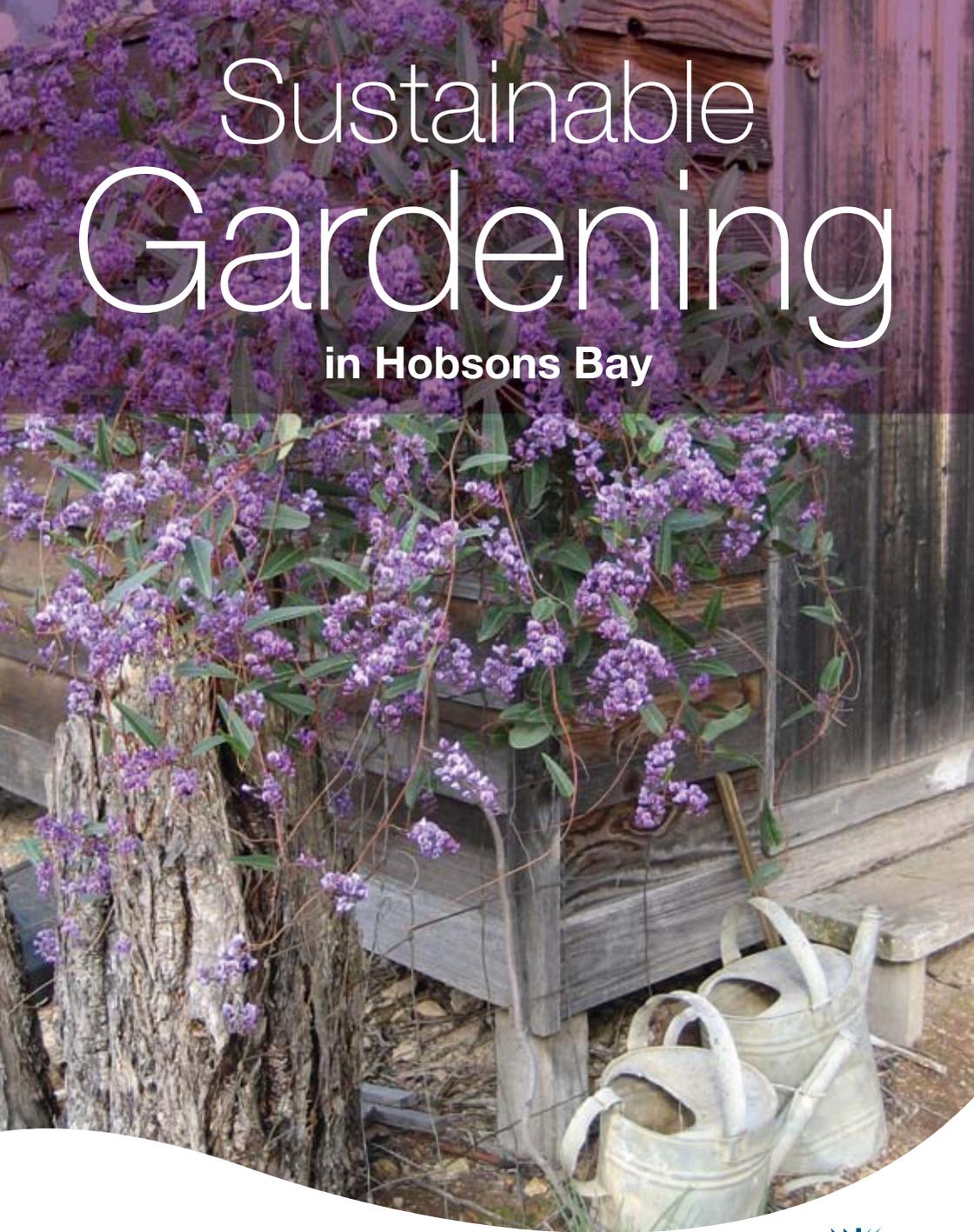


Sustainable Gardening

in Hobsons Bay





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Contents



Introduction	2
Garden design	3
Soil	5
Compost	7
Watering	8
Habitat gardening	12
Local plants	19
Gardening across Hobsons Bay	28
Hobsons Bay invasive plants	31
Disposing of weeds	37
Lawn alternatives	38
Chemicals	39
Sustainable product selection	40
Reference	41

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; and
- purchase renewable resources for the garden instead of non-renewable resources, it can help protect our old growth forests and river ecosystems.

Gardening is also good for our health and wellbeing. It provides enjoyment, exercise, relaxation, fresh, healthy food and can provide great spaces for our native flora and fauna to flourish. What could be more rewarding?

Further, it is important that we create beautiful environments through gardening. Thereby establishing interesting, diverse spaces for our families, and friends to come together for work, play or socialising.

This booklet has been designed to provide information and inspiration to create your own sustainable garden in Hobsons Bay.

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.

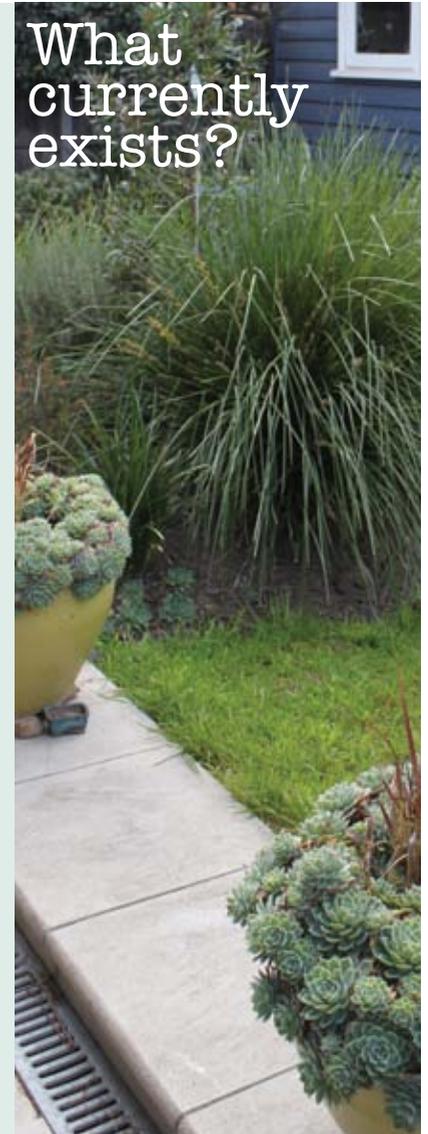
Do you need a shed for tools or firewood, a space for a compost bin, an entertainment area, a cubby house, a clothesline, a shady space for reading, a vegie patch or a space to kick the footy with the kids?

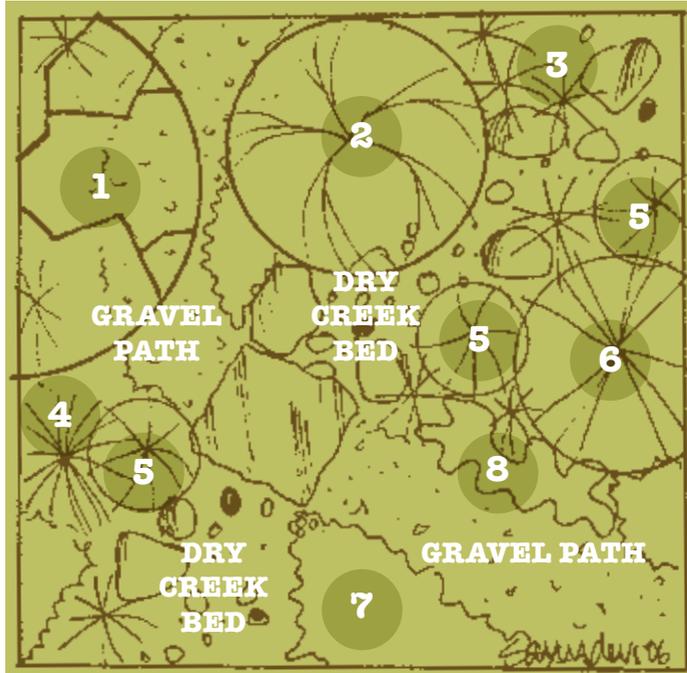
What currently exists? Do you have straight garden beds that would be more interesting curved? Do you have a slab of concrete down the back that could be replaced with raised garden beds and granitic sand paths?

What plants do you have in your garden?

Remember to look not only at trees, but at shrubs and ground covers also. What shade and shelter do they provide from the sun, wind and frost? Have they been grouped according to their water needs?

What currently exists?





INFORMAL GARDEN PLAN

The famous Australian bush garden has a relaxed easy-care feel about it. Here a meandering path crosses a dry creek bed. These gardens are a haven for wildlife and a great refuge for humans. With a bit of planning, you can ensure there is something in flower almost all year round. Remember that mass planting of the same species grouped together is very striking.

- 1 Drooping Sheoak (*Allocasuarina verticillata*)
- 2 Gold Dust Wattle (*Acacia acinacea*)
- 3 Black-anther Flax-lily (*Dianella admixta*)
- 4 Common Tussock-grass (*Poa labillardieri*)
- 5 Austral Indigo (*Indigofera australis*)
- 6 Sweet Bursaria (*Bursaria spinosa*)
- 7 Tufted Bluebell (*Wahlenbergia communis*)
- 8 Common Everlasting (*Chrysocephalum apiculatum*)



For more gardening design ideas to suit your space, speak to staff at the nurseries listed on the inside back cover of this booklet.

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.

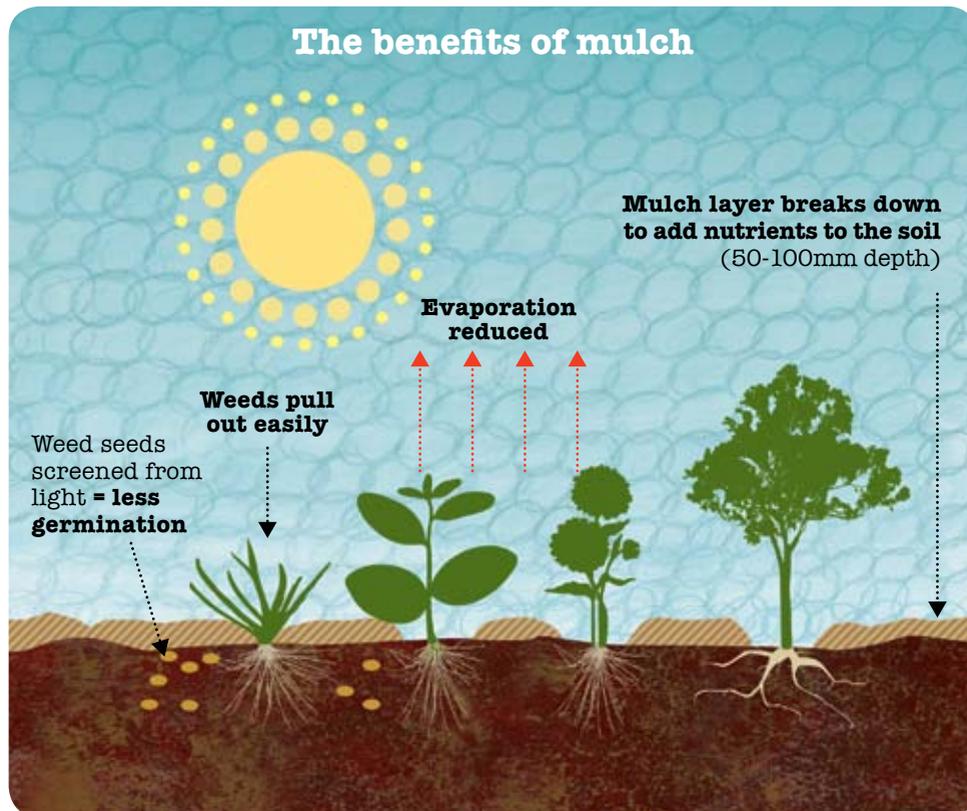
Soil improvement tips

- 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. Straw-based mulches are a good option if you have not mulched the soil for a long time as they break down quickly, returning nutrients to the soil - excellent for the vegie 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.
- Don't cultivate your soil unless it is very compacted after building works. Digging destroys the soil structure by reducing air pockets and drainage spaces which are both necessary in healthy soils.
- 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 pallets.
- Soil improvement using straw-based mulch 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.
- 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.

Hobsons Bay soils

There is a wide range of soil types across Hobsons Bay. This includes clay and sandy soils, both of which are predominant across the municipality, and both of which many gardeners struggle with. Clay soils harden when dry and become 'sticky' and waterlogged when wet. To improve a clay soil sprinkle a thin layer of gypsum across the surface of the soil. Add lots of organic matter such as compost and aged animal manures and dig into the soil. This will open up the soil, allowing oxygen to fill

the pore spaces and will provide a receptive environment for the micro-organisms that can 'unlock' the nutrients held within the soil. You could also build raised garden beds, which have the benefit of allowing you to purchase high quality soil to put in them. Thus, you avoid having to work with clay or sandy soils and you also can be certain that no soil contaminants are present. They can also have health benefits as you do not need to bend over to tend to them, reducing back strain.



Compost

When food and garden materials are broken down they can turn into compost which is 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 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 and simply forked. Mulch layers will also break down over time to add nutrients to the soil.

Add to your compost

- **Fruit and vegie scraps**
- **Coffee grounds**
- **Tea bags**
- **Herbs**
- **Leaves**
- **Egg shells - crushed**
- **Pizza containers**
- **Egg cartons**
- **Vacuum cleaner dust**
- **Onion - outer skin**
- **Finely chopped citrus peel**
- **Grass clippings**
- thin layers 3 to 4cm
- **Chopped prunings**
- **Weeds**
- not bulbs or seed heads
- **Shredded newspapers**

Keep out of your compost

- **Meat and fish scraps**
- they can attract vermin
- **Dairy**
- again they attract vermin
- **Office paper**
- bleached or glossy
- **Weed seeds and bulbs**
- you will only spread them around your garden
- **Bird, dog and cat poo**
- can be a health risk
- **Large tree branches**
- unless you've put them through a chipper
- **Citrus fruit**
- okay in small quantities
- **Diseased plants**
- spreads disease

For more information about worm farms or compost, visit www.mysmartgarden.org.au and www.sgaonline.org.au

Watering

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

Water tips

- Plant local (indigenous) native plants to reduce water use and maintenance.
- Group plants according to their water needs.
- Water the base of plants, not the leaves and use mulch to reduce evaporation and run-off.
- Use a drip watering system or porous hose which cuts wastage by ensuring that the water only goes where it is needed.
- Avoid micro-sprays. They waste up to 70 percent water through drift and evaporation and if the soil is mulched, water will not penetrate the soil.
- Check and clean your irrigation system every spring.
- Position irrigation systems so that water isn't wasted on paths, patios, driveways and buildings.
- Install garden tap timers to reduce over-watering.
- Use a rain sensor in your garden so that watering doesn't occur automatically when it is wet.
- Check the weather forecast to avoid watering before rain.
- 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.citywestwater.com.au or call **131 691**

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.

The ideal tank size will depend on what the water will be used for, the size of your roof and local rainfall patterns. In general a tank holding 3,000 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. Contact City West Water at www.citywestwater.com.au

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 on a temporary basis. Continual application of greywater can potentially cause problems for your garden. Alternate with mains water to flush the soil of any greywater build up. Greywater can contain a number of micro-organisms such as bacteria and viruses, and should never be applied to food crops. Collect and apply greywater according to the EPA regulations.

Visit www.epa.vic.gov.au , search 'greywater'



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 while 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

Raingardens are a great way to utilise stormwater, and are often planted with species that are used in 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.



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

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

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

New Holland Honeyeater

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 Common Tussock-grass (*Poa labillardieri*), Kangaroo-grass (*Themeda triandra*) and Wallaby-grass (*Rytidosperma* spp.) provide an important source of food for grass seed-eating birds such as Red-browed Finches.

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 Banksias. They also like to eat insects as a source of protein.

Parrots – Hobsons Bay is home to a diverse range of parrots such as Rosellas, Rainbow Lorikeets, Cockatoos, and the nationally endangered Swift Parrot. These feed on the flowers and seeds of Eucalyptus species and other smaller shrub species.

Large birds – Magpies and Kingfishers feed on larger insects and small lizards and skinks. Ravens are an opportunistic feeder that feed on a wide variety of plant and animal material, and food scraps in urban areas.



Magpie

Please do not feed birds with bird seed or food scraps. This encourages dependence on humans and can lead to disease.

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.



Altona Skipper Butterfly

Gahnia

In its caterpillar form, the Altona Skipper Butterfly, found predominantly in Altona, relies solely on the native Chaffy Saw Sedge for survival. It's currently classified as a vulnerable species and depends on the availability of its native habitat plant – the Chaffy Saw Sedge (*Gahnia filum*), to survive. Young plants and new growth are vital for the survival of the Skipper. For the survival of the food plant (*Gahnia filum*), inundation by water for up to six weeks must take place to ensure germination of new plants. Old plants should be burnt to encourage new growth. Help increase and stabilise the population of the Altona Skipper Butterfly by increasing the number of Chaffy Saw Sedge seedlings planted.

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*) and Saltbush plants (*Atriplex semibaccata*) are more suitable.

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 Sweet Bursaria (*Bursaria spinosa*) and Spiny-head Mat-rush (*Lomandra longifolia*), and grasses such as Kangaroo-grass (*Themeda triandra*), Wallaby-grass (*Rytidosperma* spp.) and Common Tussock-grass (*Poa labillardieri*).

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*), Sea Rush (*Juncus kraussii*) and Bare Twig-rush (*Baumea juncea*).

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

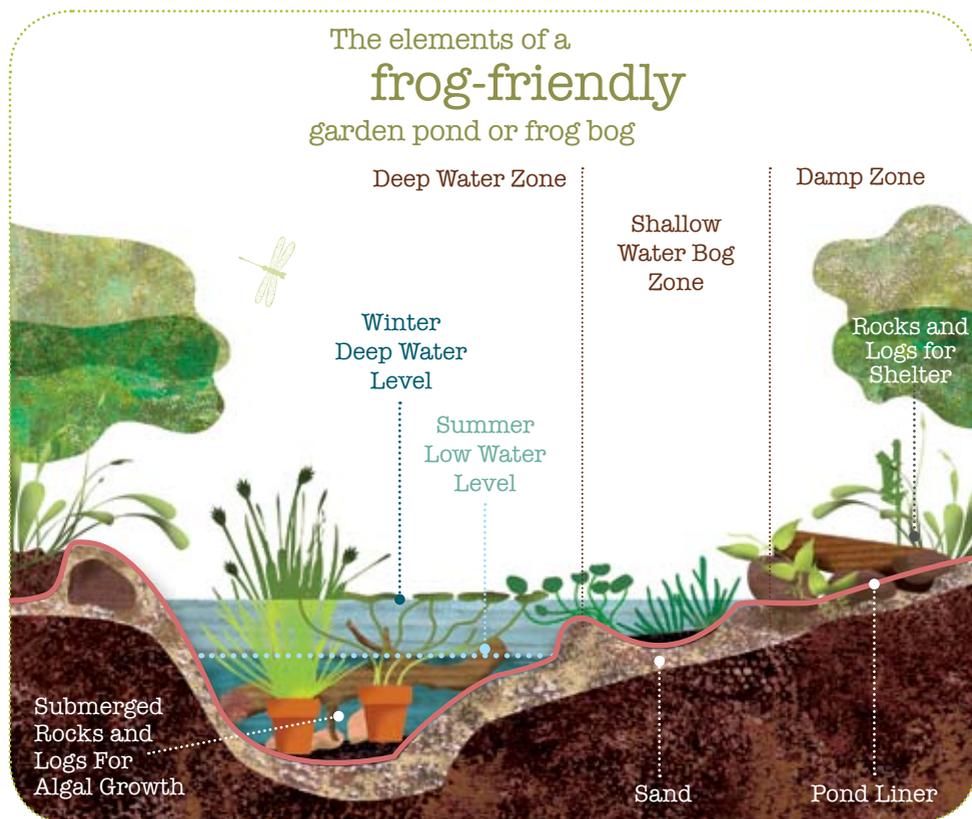


Spotted Marsh Frog

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 including Victoria.

Note: Safety barriers are not required for structures not used principally for swimming, paddling or wading (including frog bogs). Check the full Building Commission Guidelines for further details.



Snakes

Snakes play an important part in keeping nature's balance. They help control pests by eating insects, rodents and feral animals. They thrive in warm weather and are most active on warm nights. Snakes move to residential areas in hot, dry conditions usually in search of water, food or somewhere to hide. The most common snake in Williamstown is the tiger snake. It's favourite food is frogs, followed by mice.



Tiger Snake

Prevention: A well maintained garden is less likely to attract snakes to your property.

- Long grass attracts mice and lizards; favourite foods for snakes. When cutting grass, start next to your house and work your way out. Vibrations from your mower will alert snakes that you are there and they should head away from your house.
- Avoid stockpiling materials such as tin sheeting, wood piles and old machinery that can become a habitat for snakes.
- By ensuring there are no gaps or holes in your fence and by extending your fence with metal or plastic sheeting into the ground, you can reduce the chance of snakes entering your backyard.
- Bird aviaries, pet food & water bowls will attract mice and snakes. Also, other water sources like ponds may attract frogs, which may in turn attract snakes.

- When gardening, wear gloves and solid footwear for protection. If you must do any garden work after dark, turn the light on. Don't put your hands into nooks or crannies – it could be a snake's hiding place.

If you see a snake...

1. Stay calm!
2. **Do not attempt to remove the snake yourself.** Most people get bitten trying to do this!
3. Call Hobsons Bay City Council on **9932 1000**. They will have it taken away by a professional wildlife handler. This service is free and is the safest and most effective way to remove a snake. Keep an eye on the snake's whereabouts while you wait.

In Victoria, it is illegal to kill snakes and a licence is required to keep or catch them

Pest animals



Cats and dogs

Secure your cats and dogs, especially at night so they don't prey on native animals. Work with your neighbours to make sure they also secure their cats and dogs either indoors or in enclosures. Collar bells on cats have limited success.



Foxes

A secure fence without gaps that a fox can squeeze through can go a long way to keeping foxes out of your garden. Don't leave bags of rubbish lying around and make sure your bin lids are closed securely. If necessary, you can put some rocks or bricks on top, which will keep the foxes out. Of course, if you have chooks, make sure they are locked in their runs overnight.



Possums

Many of us struggle with possums which like to snack from our garden on a regular basis. However, don't forget that possums are protected native animals and need to be treated with care. If you are having problems with possums in your garden, you could try some of the following techniques, recommended by the Department of the Environment and Primary (DEPI), including building a floppy fence around your garden bed, using collars to protect your trees or using repellents.

Go to www.depi.vic.gov.au for more information.



Indian Mynah Birds

Indian Mynah birds reduce biodiversity by competing aggressively with native wildlife such as Lorikeets, often destroying their eggs and chicks and can even out-compete small mammals like micro-bats. Don't leave food scraps, bird seed or dog food around to help minimise visits from Mynahs.



Unwanted pets

Sometimes people have pets, like cats or dogs, that are no longer wanted so they dump them in natural areas. This is not only cruel and illegal, but can have severe impacts on the local fauna in the area. Additionally, domestic ducks should never under any circumstances be released into our natural waterways – creeks, lakes etc.

Local plants



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 i.e., 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. Check that your supplier has sourced local provenance seed for best results. There are many beautiful plants indigenous to

Hobsons Bay that are featured in this section of the booklet.

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 31-37 for a list of plants considered to be 'invasive plants' in the Hobsons Bay area and consider replacing these with less invasive plants.

Hobsons Bay local plants

The following list of species make great plants for gardens in Hobsons Bay 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 Hobsons Bay at the back of this booklet for a more comprehensive range of local species.

Key:

Suitable as hedge **HHH**

Height



Width



Full sun



Part shade



Full shade



Drought tolerant



Needs seasonal water



Small plants

Name	Requirements	Features
 <p>Common Everlasting (<i>Chrysocephalum apiculatum</i>)</p>	 ↓ 20cm ↔ 1m Well-drained soil.	An excellent rockery plant with contrasting silver foliage. Prune regularly to encourage new growth.
 <p>Kidney Plant (<i>Dichondra repens</i>)</p>	 ↓ prostrate ↔ 30cm Well-drained soil.	An excellent lawn substitute in moist, shady areas where traffic is very light.
 <p>Running Postman (<i>Kennedia prostrata</i>)</p>	 ↓ 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.
 <p>Basalt Daisy (<i>Brachyscome basaltica</i>)</p>	 ↓ 20cm ↔ 1m Prefers moist soil but will tolerate dryness once established.	Grows well in a pots. Fast growing. Light pruning after flowering.
 <p>Sticky Everlasting (<i>Xerochrysum viscosum</i>)</p>	 ↓ 60cm ↔ 30cm Well-drained soil.	Prune hard in autumn to extend life. Spectacular planted in drifts.
 <p>Tufted Bluebell (<i>Wahlenbergia communis</i>)</p>	 ↓ 30cm ↔ 15cm Well-drained, moist soil.	Looks great in containers or when planted amongst grasses.



Small plants				Grasses and tussocks			
Name		Requirements	Features	Name		Requirements	Features
		<p>Native Flax <i>(Linum marginale)</i></p> <p>☀️ ☁️ 💧 ↑ 50cm ↔ 30cm Well-drained soil.</p>	<p>Grows mostly in the cooler months and dies back after flowering</p>			<p>Common Sedge <i>(Carex tereticaulis)</i></p> <p>☀️ ☁️ 💧 ↑ 1m ↔ 1m Moist soils, tolerating occasional inundation.</p>	<p>Attractive flower-heads August till April.</p>
		<p>Austral Stork's Bill <i>(Pelargonium australe)</i></p> <p>☀️ ☁️ 💧 ↑ 50cm ↔ 40cm Prefers well-drained soil.</p>	<p>Great in rockeries. Aromatic leaves.</p>			<p>Silky Blue-grass <i>(Dichanthium sericeum)</i></p> <p>☀️ 💧 ↑ 80cm ↔ 20cm Well-drained soil.</p>	<p>Look great on mass. Excellent colonizer for bare ground or rockeries</p>
		<p>Bulbine Lily <i>(Bulbine bulbosa)</i></p> <p>☀️ ☁️ 💧 ↑ 40cm ↔ 30cm Adaptable to most soils.</p>	<p>Beautiful in mass plantings. Dies back to tuberous rootstock in dry weather to re-shoot in autumn.</p>			<p>Kangaroo Grass <i>(Themeda triandra)</i></p> <p>☀️ ☁️ 💧 ↑ 30cm ↔ 30cm Adapts to most soils.</p>	<p>Attractive tufting grass with distinctive flower spikes in summer.</p>
		<p>Chamomile Sunray <i>(Rhodanthe anthemoides)</i></p> <p>☀️ ☁️ 💧 ↑ 30cm ↔ 40cm Prefers well-drained soil and sheltered position.</p>	<p>Grow well in containers, rockeries or a mass feature in a garden.</p>			<p>Pale Flax-lily <i>(Dianella longifolia)</i></p> <p>☀️ ☁️ 💧 ↑ 80cm ↔ 50cm Well-drained soil.</p>	<p>Hardy, easily maintained plant.</p>
		<p>Showy Podolepis <i>(Podolepis jaceoides)</i></p> <p>☀️ 💧 ↑ 60cm ↔ 30cm Prefers well-drained soil.</p>	<p>Beautiful planted in drifts.</p>			<p>Wallaby-grass <i>(Rytidosperma spp.)</i></p> <p>☀️ ☁️ 💧 ↑ 30cm ↔ 1m Well-drained soil.</p>	<p>Tussocky grass with attractive foliage.</p>
		<p>Drumsticks <i>(Pycnosorus globosus)</i></p> <p>☀️ 💧 ↑ 30cm ↔ 50cm Prefers moist, heavy soils.</p>	<p>Mass plantings look great.</p>			<p>Spear-grass <i>(Austrostipa spp.)</i></p> <p>☀️ ☁️ 💧 ↑ 20cm ↔ 30cm Well-drained soil.</p>	<p>Beautiful large, open flowerheads in summer.</p>



Shrubs				Shrubs				
Name		Requirements	Features	Name		Requirements	Features	
	<p>Spreading Eutaxia (<i>Eutaxia microphylla</i> var. <i>diffusa</i>)</p>	 ↓ 1m ↔ 1m Well-drained soil. Very drought tolerant.	Prune to create a bushier plant.			<p>Gold Dust Wattle (<i>Acacia acinacea</i>)</p>	 HHH ↓ 2m ↔ 2m Adaptable to most soils.	A good low screening plant. Suitable for large pots.
	<p>Rock Correa (<i>Correa glabra</i>)</p>	 HHH ↓ 1.5m ↔ 2m Well-drained soil. Ideal for dry sites.	Establishes well under existing trees. Responds well to a light pruning.			<p>Desert Cassia (<i>Senna artemisioides</i>)</p>	 ↓ 2m ↔ 1.5m Well-drained soil.	Slow growing but spectacular when in flower. Attractive seed pods also.
	<p>Sticky Daisy-bush (<i>Olearia glutinosa</i>)</p>	 ↓ 2m ↔ 1.5m Well-drained sandy soil. Salt tolerant.	Dense rounded shrub ideal for coastal garden.			<p>River Bottlebrush (<i>Callistemon sieberi</i>)</p>	 HHH ↓ 10m ↔ 4m Adapts to most soils.	Excellent screening shrub. Pruning encourages flowering.
	<p>Wedge-leaf Hop-bush (<i>Dodonaea viscosa</i> spp. <i>cuneata</i>)</p>	 HHH ↓ 2m ↔ 1m Well-drained soil. Excellent for dry sites.	Very hardy shrub. Excellent screening plant. Responds well to pruning.			<p>Sweet Bursaria (<i>Bursaria spinosa</i>)</p>	 ↓ 5m ↔ 2m Well-drained soil. Excellent for dry sites.	Bushy forms make excellent screening plants.
	<p>Austral Indigo (<i>Indigofera australis</i>)</p>	 ↓ 2m ↔ 2m Well-drained soil. Lime tolerant	Needs regular pruning for shaping.			<p>Golden Spray (<i>Viminaria juncea</i>)</p>	 ↓ 5m ↔ 2m Well-drained soil. Excellent for dry sites.	Fast growing tree. Pruning while young encourages denser growth. Good screening and wind break.
	<p>Hop Goodenia (<i>Goodenia ovata</i>)</p>	 HHH ↓ 2m ↔ 1m Prefers damp soil.	Fast growing. Responds well to pruning			<p>Shiny Cassinia (<i>Cassinia longifolia</i>)</p>	 ↓ 2m ↔ 2m Well drained soil.	Fast growing, rounded shrub. Prune hard after flowering.



Trees				Coastal			
Name		Requirements	Features	Name		Requirements	Features
	Silver Banksia <i>(Banksia marginata)</i>	 ↑ 10m ↔ 5m Well-drained soil. Excellent for dry sites.	Bushy forms make excellent screening plants.		Chaffey Saw-sedge <i>(Gabnia filum)</i>	 ↑ 1m ↔ 1m Moist sandy soil. Salt tolerant.	Tussocky sedge suitable for wet depressions.
	Red Box <i>(Eucalyptus polyanthemos)</i>	 ↑ 7-25m ↔ 5-15m Requires good drainage. Will tolerate poor stony soils.	Attractive cream flowers Sept to Jan.		Coastal Tussock-grass <i>(Poa poiiformis)</i>	 ↑ 50cm ↔ 80cm Well drained sandy soil. Tolerates salt.	Densely tufting grass.
	Drooping Sheoak <i>(Allocasuarina verticillata)</i>	 ↑ 8m ↔ 6m Well-drained soil.	Fast growing, graceful tree.		Common Sea Heath <i>(Frankenia pauciflora)</i>	 ↑ 15cm ↔ 1m Well drained soil. Salt tolerant.	Container, rockery plant. Light pruning recommended.
	Blackwood <i>(Acacia melanoxlyn)</i>	 ↑ 10m ↔ 5m Prefers deep, moist soil, but adaptable tolerating dryness once established.	A long-lasting tree providing good screening and shade.		Coastal Banksia <i>(Banksia integrifolia)</i>	 ↑ 10m ↔ 5m Well-drained soil, responding to summer watering.	Attractive dark green leaves with silver underside. An excellent ornamental windbreak..
	Lightwood <i>(Acacia implexa)</i>	 ↑ 8m ↔ 3m Well-drained soil. Excellent for dry sites	Fast-growing tree. Good screening and windbreak tree.		Rounded Noon-flower <i>(Disphyma crassifolium)</i>	 ↑ prostrate ↔ 2m Reliabe in most soils. Salt tolerant.	Great on embankments.
	Golden Wattle <i>(Acacia pycnantha)</i>	 ↑ 8m ↔ 4m	Attractive display of flowers winter-spring		Coast Flax-lily <i>(Dianella brevicaulis)</i>	 ↑ 1m ↔ 50cm Well drained soil.	Hardy, easily maintained.

Gardening across Hobsons Bay

Places to enjoy local native plants



Kororoit Creek
Riparian Vegetation



Newport Lakes
Shrubs and Trees



McCormack Park
Scattered Red Gums



Sandy Point
Flowering Herbs



Truganina Park
Wetland Plants



Altona Coastal Park
Coastal Plants



Rifle Range Reserve and Jawbone Reserve
Coastal Plants





Indigenous gardens

You too can have a beautiful garden using local plants



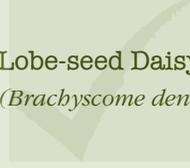
Hobsons Bay invasive plants

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



Agapanthus



Ground covers				Replacement ground covers		
	Name	Features		Name		
		 African Daisy (<i>Arctotis stoechadifolia</i>)	Tough and fast growing.	 Lobe-seed Daisy (<i>Brachyscome dentata</i>)		
		 Butterfly Iris (<i>Dietes grandifolia</i>)	Hardy and tough.	 Spiny Mat-rush (<i>Lomandra longifolia</i>)		
		 Agapanthus (<i>Agapanthus praecox</i> subsp. <i>orientalis</i>)	Leaves poisonous. Sticky sap can cause mouth ulcers.	 Black-anther Flax-lily (<i>Dianella admixta</i>)		
		 Hottentop Fig (<i>Carpobrotus edulis</i>)	Forms dense, smothering mats.	 Coastal Pigface (<i>Carpobrotus rossi</i>)		
		 Morning Glory (<i>Ipomoea indica</i>)	Fast growing climber that smothers bushland.	 Native Violet (<i>Hardenbergia violacea</i>)		
		 Gazania (<i>Gazania</i> spp.)	Escapes onto roadsides and bushland	 Cut-leaf Daisy (<i>Brachyscome multifida</i>)		



Grasses and shrubs		Name	
	Name	Features	
	Fountain Grass (<i>Pennisetum setaceum</i>)	Can grow up to 1m tall. Distinctive flowerheads from Jan-April.	 Plume Grass (<i>Dichelachne crinita</i>)
	Couch (<i>Cynodon dactylon</i>)	Perennial grass with flat hairy leaves. Grows rapidly and can become a problem if cuttings are dumped.	 Australian Salt-grass (<i>Distichlis distichophylla</i>)
	Kikuyu (<i>Pennisetum edulis</i>)	Perennial grass, creeping stems to 3m long. Easily spread from cuttings.	 Weeping Grass (<i>Microlaena stipoides</i>)
	Polygala (<i>Polygala myrtifolia</i>)	Spreads rapidly in coastal areas.	 Desert Cassia (<i>Senna artemisioides</i>)
	Olive Tree (<i>Olea europaea</i>)	Very long lived. Fruit spread by birds and animals.	 Silver Banksia (<i>Banksia marginata</i>)
	Cape Broom (<i>Genista monspessulana</i>)	Seeds highly poisonous.	 Gold Dust Wattle (<i>Acacia acinaceae</i>)



Large invasive shrubs and trees

Watch out for these species and remove them as soon as you see them as they are known to cause problems

		Name	Features
		Mirror Bush (<i>Coprosma repens</i>)	Evergreen shrub to 8m tall. Shiny green leaves.
		Prickly Pear (<i>Opuntia</i> spp.)	Succulent up to 5m tall. Large spines. Edible fruit.
		Desert Ash (<i>Fraxinus angustifolia</i>)	Glossy bright green leaves with serrated edges. Distinctive winged seed capsules.
		Monterey Pine (<i>Pinus radiata</i>)	Aromatic tree with needle leaves, often sold as a Christmas tree.
		Sweet Pittosporum (<i>Pittosporum undulatum</i>)	Dark green leaves, small creamy-white flowers. Distinctive, yellow fleshy fruit.
		Canary Island Date Palm (<i>Phoenix canariensis</i>)	Spreads slowly and goes unnoticed until it becomes a problem.

Disposing of weeds

Disposing of invasive plants

Hobsons Bay City Council offers a fortnightly green waste kerbside collection service for garden weeds, grass clippings, pruning and small branches. You can add noxious weeds to your green waste bin. There are several options when trying to work out what to do with green waste, garden clippings and branches that may become weeds. These include:

- **Composting**- this is only appropriate if the material is generally free of weed seeds and bulbs.
- **Chicken Feed** – chooks will happily feed on a wide variety of herbaceous weeds.
- **Solarising** – place weedy plants on a tarp or sheet of dark plastic in a site that receives full sun. Wrap weed plant material up and leave for several weeks. This action cooks the weedy plants.
- **Soaking** – many people take common garden weed and wrap them up in netting and dunk them into a large bucket or bin of water, creating a ‘weed teabag’. As the weeds break down over several weeks this allows for many of the nutrients and minerals in the plant to be recycled back into the garden as liquid fertiliser and a much smaller volume of green waste to be dealt with.

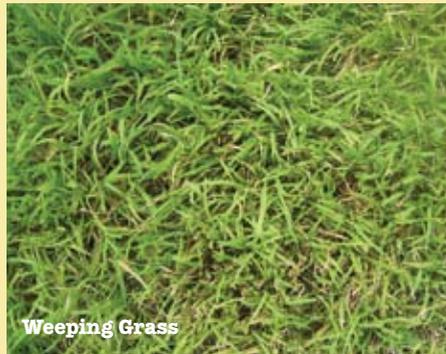
Avoid stockpiling weedy material as these weed piles may reshoot and set down roots again if left. A common technique used in bushland regeneration is to hang the weedy plants in trees or shrubs so that plants dry out and cannot set root again in the ground. Eventually these weeds will shrivel and die and rot back into the ground.



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.



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

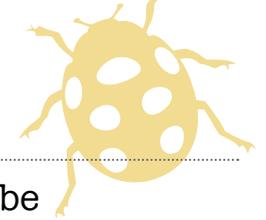


Native wildflowers – planting out a mass of native wildflowers to create a meadow look can be spectacular, particularly in spring and summer. This works very well as a front lawn alternative. Examples include: Tufted Bluebell (*Wahlenbergia communis*), Chocolate Lily (*Arthropodium strictum*), and Bulbine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



For further advice about indigenous plants suitable for use as lawns, visit the indigenous nurseries listed on the inside back of this booklet.

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.

Creating a healthy garden

- Healthy plants can protect themselves, provided they have a healthy soil, are mulched, not exposed to synthetic fertilisers and are regularly watered.
- 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.
- Check the micro-climate. Many fungal diseases occur when there is too much shade or poor ventilation due to plants being too close together.
- Accept that some losses and blemishes are normal in a chemical free garden.
- Practice a range of techniques – plant companion plants, manually remove weeds and encourage biodiversity in the garden.
- Sharpen your pruning tools so cuts are clean and bark isn't torn. Prune diseased or damaged wood from trees before they cause bigger problems.
- Clean your secateurs by wiping the blades thoroughly with eucalyptus oil before moving between plants.
- Home remedies are often very effective. E.g. Milk spray can be used to combat powdery mildew; beer traps for slugs/snails; or linseed oil for earwigs.
- Check your garden regularly for pests.



Sustainable product selection

When buying products for the garden, we often don't think about where they have come from. With some thought we can support more environmentally sound practices through the products we choose for our gardens and homes. Here are some tips to start you thinking:

- Buy the best garden tools you can afford. They last longer, so you won't have to be continually replacing them which has a high environmental impact.
- Make sure you know where rocks and pebbles you purchase are sourced from. Generally, if they are available in bulk they will have been mined from an Australian quarry without damaging an active stream. Pebbles made from recycled stone and glass are also a good alternative, as is volcanic rock and granite collected from private land.
- Grass trees, tree ferns and native orchids may have been sourced illegally from the forest. Plants should be sold with a government tag stating that they have been legally collected.
- When selecting mulch, it's best to choose materials that are from plantations rather than from felled native forests.
- Avoid sleepers made from native Red Gum trees, as their production has devastating effects on intricate ecosystems that support native fauna. Plantation timber sleepers, such as Hoop Pine or Blue Gum are a good alternative.
- Outdoor furniture made from Teak or Jarrah is not sustainable. Garden furniture made from reclaimed or plantation timber has less of an impact on the environment.
- Use recycled plastic edging. It comes in a range of colours and lasts a long time. Avoid Jarrah or Karri edging, which are sourced from old growth Eucalypt forests.



While you're out shopping, be sure to be as sustainable as possible. Don't forget to bring your own bags, ask questions about the source of products and, of course, re-use and recycle items whenever possible instead of buying new products.

Reference and further advice

For advice on indigenous plants:

Newport Lakes Native Nursery

2 Lakes Drive, Newport
(enter via Newport Lakes Reserve)
Open seven days
Telephone: (03) 9391 0044

Saltwater Flora

Williamstown
Telephone: 0418505120
Email: leppittrichard4@gmail.com

Iramoo Sustainable Community Centre

St Albans
Telephone: (03) 9919 4000

Stay informed:

Sustainable Gardening Australia free eNewsletter "Cuttings".
Subscribe at www.sgaonline.org.au

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

City West Water
www.citywestwater.com.au

Weed Society of Victoria.
www.wsvic.org.au

Living Green in Hobsons Bay and Ranger Ramblings eNewsletters
Subscribe at www.hobsonsbay.vic.gov.au/eNewsletter

My Smart Garden Program
Register or find out more at
www.mysmartgarden.vic.gov.au

Environment Resource Centre

Altona Library
123 Queen Street, Altona
Telephone: 9932 1330
<http://libraries.hobsonsbay.vic.gov.au>

The Diggers Club
Telephone: 5984 7900
www.diggers.com.au

Further reading:

APS Keilor Plains Group NOW:
(2012) 2nd Edition
Plants of Melbourne's Western Plains: A Gardener's Guide to the Original Flora.

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

Costermans, L.F (2009) **Native Trees and Shrubs of South-Eastern Australia**, New Holland Publishers Pty Ltd, Australia.

Richardson, F.J, Richardson, R.G, Shepherd, R.C.H (2007) **Weeds of the South-East. An Identification Guide For Australia.** Everbest Printing Co.Ltd, China.





Photo by Peter Bire

Sustainable
Gardening
in Hobsons Bay