Department of Water and Environmental Regulation
Department of Primary Industries and Regional Development

GOVERNMENT OF WESTERN AUSTRALIA

BAY OK

NEW GARDEN GUIDE

Creating a New Garden in the Geographe Catchment








GeoCatch

Revitalising Geographe Waterways

VASSE taskFORCE

The Geographe Catchment is home to the internationally recognised Vasse Wonnerup Wetlands and majestic Geographe Bay.

Geographe Bay is home to hundreds of different life forms, including the second largest temperate seagrass meadow in Australia. However, water quality monitoring in the Geographe Catchment indicates that the health of the Bay could be at risk if nutrient inputs continue to increase. High nutrient loads send our natural aquatic systems out of balance, fueling growth of algae which can smother plants and lead to the death of fish and other aquatic fauna. These nutrients come from a range of sources, both urban and rural, and everyone can do their bit to reduce them.

"A healthy bay begins... in your own backyard"

GeoCatch is helping gardeners to adopt low nutrient gardening practices that will reduce nutrients entering wetlands, waterways and Geographe Bay from everyday activities in the home, garden, school, business or farm.

This Bay OK New Garden Guide is the second resource created by GeoCatch to promote sustainable gardening principles to the community, specifically residents creating new gardens. It is a companion booklet to the Bay OK Garden Guide. A Bay OK Garden minimises nutrient run-off, conserves water and supports local biodiversity. By following these three Bay OK Garden Principles, gardeners can create beautiful, healthy gardens that have a positive impact on the environment by protecting our wetlands and waterways and the Bay's marine environment.

The three Bay OK Garden Principles are:

1) Minimising nutrient runoff
2) Conserving water
3) Supporting local biodiversity

STEP 1: Getting Prepared

Planning Approvals and Council Requirements

Prior to creating your Bay OK garden it is essential to understand the requirements of your local council, whether it be City of Busselton or the Shire of Capel. Council websites will indicate whether or not planning approvals are required, particularly in relation to structures/sheds, water tanks, grey water systems and verges.

It is also worthwhile discussing your garden plans with your neighbours to prevent future issues arising.

The City of Busselton supplies free verge trees to residents. Contact the City of Busselton for further information.

Dial Before You Dig

A 'Dial before you Dig' assessment should be undertaken prior to any garden digging or garden construction work. This will assist in understanding the location of above and below ground services on your property and may impact your landscape proposals.

For Information on Verges:

- ***City of Busselton, Nature Verge Booklet***

www.busselton.wa.gov.au/documents/1085/installing-a-nature-verge-information-sheet

- ***Shire of Capel, Nature Verge booklet***

www.capel.wa.gov.au/Profiles/capel/Assets/ClientData/Document-Centre/Health___Environmental/Verge_Booklet_October_2023.pdf

For Information on Existing Services:

- ***Dial Before You Dig***

www.1100.com.au

STEP 2: Key Considerations

Protect Existing Trees

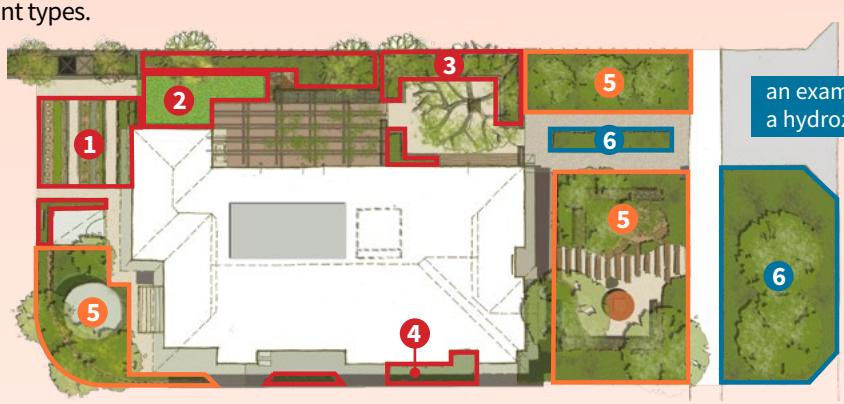
If existing trees are well established, in good condition and meet local council requirements, they should be kept. Therefore care will need to be taken during the construction of your property to ensure no damage occurs. The following precautions should be taken to protect existing trees:

- As structural roots are located around the tree trunk, no mechanical excavation should occur within a 5m radius and required works should be undertaken by hand. Typically, temporary fencing is erected around existing trees which will help protect them from any construction works.
- Do not cut tree roots exceeding 25mm diameter. If there are existing tree roots where you intend to build, you may wish to consider an alternative construction method, such as building on stumps rather than directly on the ground.
- It is best to water the existing trees regularly during the construction works and especially during summer.
- If the tree is showing signs of decline it is worth engaging a qualified arboriculturist to inspect its condition.

Hydrozoning Principles

Hydrozoning involves classifying particular garden areas based on their vegetation type as well as fertiliser, water and maintenance needs. Below are some simple hydrozoning principles to consider:

- **Group similar plants in each hydrozone** – Plants should be grouped according to their fertiliser, water and sunlight requirements, for example: lawn, garden beds and vegetable beds should all be on separate hydrozones.
- **Irrigate based on hydrozones** – Allow the identified hydrozones to inform your irrigation layout and design. Using the correct sprinkler head for the appropriate hydrozone will ensure even water distribution and maximise water efficiency.
- **Minimise plants with high water and fertiliser needs** - Lawn and exotic plant species require more water and fertiliser compared to natives, therefore it is best to minimise these plant types.



an example of a hydrozone plan

HIGH RESOURCE NEEDS

Zone 1: Productive garden beds
Zone 2: Lawns
Zone 3: Exotic trees and shrubs
Zone 4: Exotic and shade tolerant shrubs

MEDIUM RESOURCE NEEDS

Zone 5: Native trees and shrubs

LOW RESOURCE NEEDS

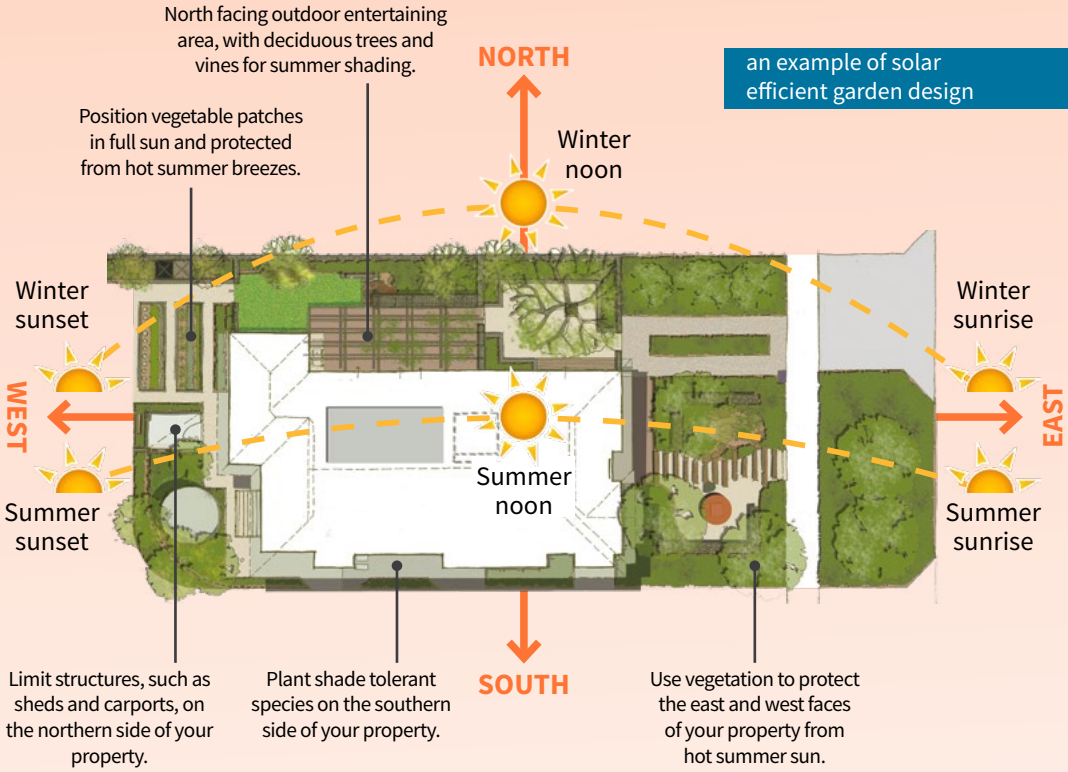
Zone 6: Native groundcovers and street trees

STEP 2: Key Considerations

Maximise Solar Efficiency

Understanding where the sun tracks across your garden will influence how you arrange key elements. Here are a few tips to get you started:

- North facing is the best location for outdoor entertaining, however it is important to provide shade during the summer months as it will get very hot. Deciduous trees and vines will allow for summer shading, while still providing winter sun.
- Limit structures, such as sheds and carports, on the northern side of your property. As this side receives the most sun, it will be the most successful location in your garden.
- Protect both eastern and western sides of your property from hot summer sun with vegetation and screening.
- Consider shade tolerant species on the southern side of your property, noting that lawn won't thrive in shady situations.
- Your vegetable patch should ideally be positioned in full sun and well protected from hot summer breezes.
- Consider the placement of vegetation to assist in directing cool sea breezes to entertaining and other commonly used garden areas.



an example of solar efficient garden design

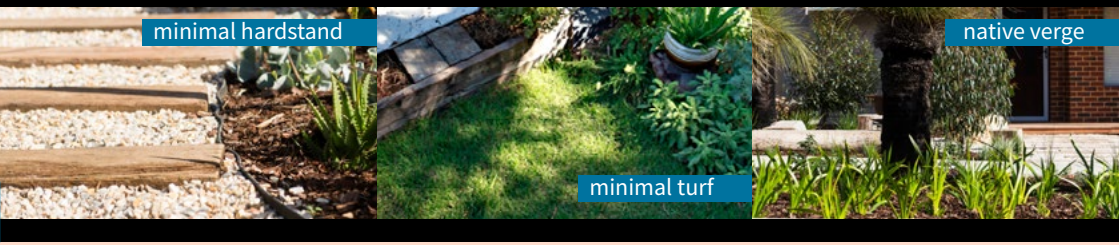
STEP 2: Key Considerations

Minimise Hard Surfaces

Consider minimising hard surface areas such as the spaces between the boundary and your house or even within the driveway. By reducing the amount of hard surfaces on your property to around 30% (of your property's total area) you will:

- Reduce the amount of stormwater runoff and increase the natural infiltration into the groundwater.
- Increase the local biodiversity and micro-organism activity in the soil.
- Reduce the effect of heat absorption caused by an area of hard surfacing.

Consider replacing impermeable surfaces with crushed gravel, mulch or permeable paving to allow stormwater to infiltrate locally, replenishing groundwater and helping to reduce the amount of polluted water entering stormwater drainage systems through run off.



Minimise Lawn Areas

It is recommended that lawn be limited to a maximum of 50% of the landscaped area (excluding the house and other structures). Lawn requires large amounts of water, fertilisers and herbicides which if poorly managed can result in leaching into waterways.

Lawn should only be installed where it is to be actively used i.e. for children's play and pets run around area. A great place to avoid installing lawn is on your verge, where a native, low maintenance garden would be a perfect alternative.

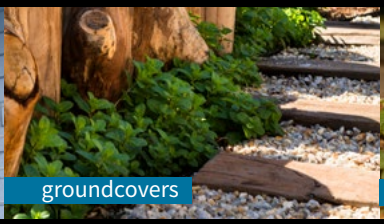
Artificial turf isn't necessarily a good alternative to lawn and shouldn't be used in large, full sun areas as it becomes incredibly hot and dangerous, especially for children in bare feet. It also requires maintenance, such as stain removal and weeding, and will need replacement after 7-10 years making it very costly.

STEP 2: Key Considerations

Considerations for New Trees

For summer cooling, natural shade and enriched biodiversity, it is worth ensuring sufficient space for one or more medium to large trees (between 4m and 10m high) within your new garden, in accordance with council requirements. Depending on the tree species you select, their ideal location and space requirements will differ, but the following tips will help get you started:

- Look at the tree's nursery label for the overall canopy spread, height, form and nature, deciduous or evergreen, to ensure sufficient room is allowed for the tree's growth, as well as minimising the risk of branch damage to your property.
- Consider how your tree will affect your neighbour's property. Is it likely to prevent loss of solar access into their homes during winter or cause property damage in the future?
- Consider trees that have a high canopy and clear mid storey to maintain natural ventilation and air movement, especially during the summer months.
- For narrow or small spaces, consider an upright tree form, for example: *Adenanthos sericeus* 'Woolly Bush.' This type of tree form will also assist with screening and privacy.
- Use permeable surfaces beneath the tree's canopy to ensure surface water can be directed to the tree's roots.



Maximise Space

If you have a small property, there are a number of creative ways to maximise your garden space:

- Selecting appropriate plants can make the space feel larger while also creating privacy. For example, vines such as *Hardenbergia comptoniana*, and hedges such as *Dodonaea viscosa purpurea* 'Purple Hopbush' are ideal for small spaces.
- Blank walls, fences and pergola's create opportunities for hanging baskets or vertical pot gardens.
- Pots and planter boxes are an effective way to include plants in entertaining areas and awkward corners, where there is not enough room for inbuilt garden beds.
- Ground-covers and small native grasses can be used between pavers to create a feature and break up hardstand areas.

STEP 2: Key Considerations

Encourage Biodiversity

There are several simple features that can be incorporated into your new garden that will provide great habitat for local wildlife. These could include:

- Establishing a frog friendly garden by installing a lined frog pond surrounded by native local rushes and sedges, as well as rocks and logs.
- Randomly placing old logs and rocks for reptiles and insects. Encouraging beneficial insects within your garden will reduce the need for pesticides and increase local biodiversity.
- Consider incorporating multi-layered vegetation, with a variety of species, to create a range of habitats for animals. Selecting native plant species which flower during alternate seasons will also attract birds and insects throughout the year.
- Creating a native verge garden to act as an attractant for local fauna.
- Installing bird, possum and bat nesting boxes within existing mature trees.
- Providing clean, fresh water for wildlife in a pond or water bowl.
- Avoiding the use of chemical pesticides and choosing natural, organic, biological and non-toxic alternatives.

For Information on Biodiversity:

- ***GeoCatch, Bay OK Garden Guide***

www.geocatch.asn.au/wp-content/uploads/2020/07/Bay_OK_Garden_Guide.pdf

For Information on the Western Ringtail Possum:

- ***GeoCatch, The Western Ringtail Possum: A Threatened Species in our Backyard***

www.geocatch.asn.au/living-with-possums/

frog friendly garden

garden rocks for wildlife

water for wildlife

The Western Ringtail Possum is a threatened species, with Busselton and Dunsborough urban areas supporting one of the last major populations. Planting WA Peppermint (*Agonis flexuosa*) trees will provide habitat for the Ringtail and help ensure their future existence. Refer to the GeoCatch website for more information.

TYPICAL BAY OK GARDEN PLAN

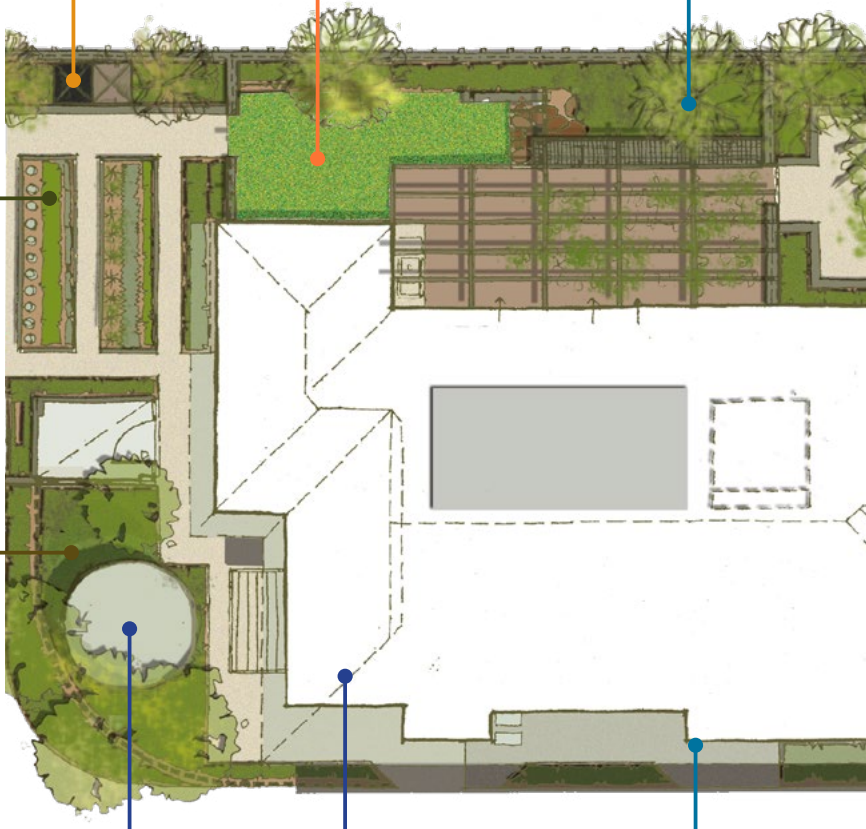
Key Features and Approaches

Install a compost bin and/or worm farm to turn your kitchen and garden waste into valuable organic compost for the garden. Refer to page 20.

Minimise lawn areas as they have high fertiliser and water needs. Refer to page 7.

Maximise water efficiency in garden beds with the use of stream rotors on fixed rigid riser sprinklers, or use drip line irrigation. Refer to page 16.

Adopt crop rotation practices within your productive garden beds to control pests and diseases. Refer to page 13.



If you apply fertiliser make sure you refer to the manufacturer's application rates to avoid excess leaching into waterways. Refer to page 15.

Rainwater tanks can be used to store rain water run off from roofs. Large water tanks may require local government approval but the use of rainwater for irrigation is not subject to any watering restrictions. Refer to page 18.

Collect grey water from your household bath, shower, bathroom basins and laundry for reuse in your garden. Refer to pages 18 & 19.

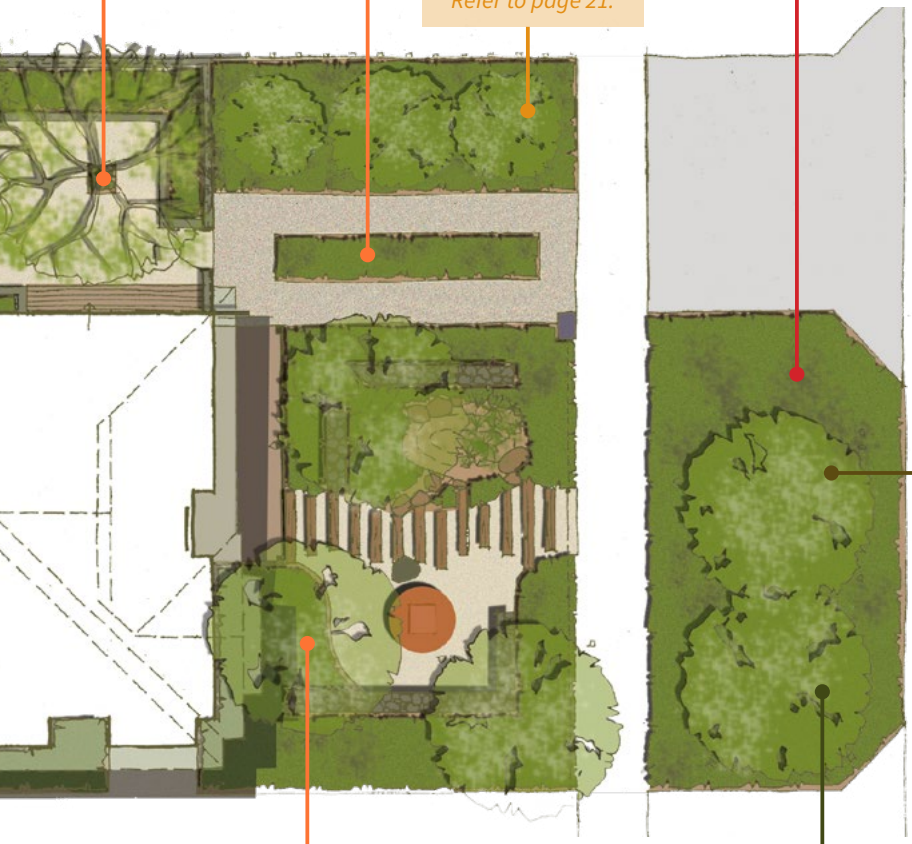
Install simple irrigation technologies such as a rain sensor or soil moisture sensor. These can adjust your irrigation watering run times during/following rain events. Refer to page 17.

Deciduous trees and vines will provide summer shading, while also allowing for winter sun. Refer to pages 6 & 8.

Minimise hard surfacing with clever use of low growing natives in non trafficable areas of the driveway. Refer to page 7.

Maintain a 5-10cm layer of mulch in garden beds. Refer to page 21.

Check with your local council as to whether any planning approvals are required before commencing work on your verge. Refer to page 4.



Obtain a soil test to determine what nutrients, if any, are deficient in your soil. Refer to page 14.

Keep existing trees that are well established and in good condition, as they will encourage local biodiversity into your garden. Be sure to take additional steps to protect these trees during the construction of your property. Refer to page 5.

Native verge gardens planted with local endemic shrubs and trees support local biodiversity and require minimal fertiliser and water. Refer to pages 9 & 12.

STEP 3: Selecting the Right Plants

Incorporate Local Native Plant Species

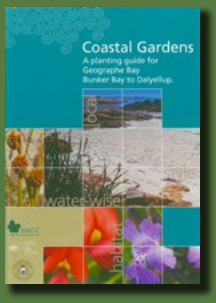
The Geographe region is home to a huge range of unique Australian native plants, and through careful design a variety of different garden aesthetics can be achieved using local native plants. Some of the advantages of planting native varieties rather than exotics include:

- Easier establishment and greater chance of successful growth due to their compatibility with the region's conditions.
- Require less water and fertilisers, as well as being more likely to survive extended periods of drought. No phosphorus should be used on native gardens.
- Encourage local biodiversity to your new garden. This is particularly important, as the Geographe region is a hotspot for threatened or endangered species. By increasing their potential habitat, their chance of survival is also greatly increased.
- Natives can also be pruned and maintained to create a wide variety of garden aesthetics.


basket bush
Spyridium globulosum


sea rush
Juncus kraussii


running postman
Kennedia prostrata



For Information on Local Native Plant Species:

- ***South West NRM Coastal Gardens***
www.geocatch.asn.au/wp-content/uploads/2023/10/Capes_Coastal_Gardens_Booklet.pdf
- ***GeoCatch, Growing Local Native Plants in Dunsborough***
www.geocatch.asn.au/wp-content/uploads/2023/12/Growing_Local_Native_Plants_In_Dunsborough_Urban_Areas_Guide.pdf
- ***GeoCatch, Growing Local Native Plants in Busselton Urban Areas***
www.geocatch.asn.au/wp-content/uploads/2023/12/Growing-local-native-plants_Busselton.pdf
- ***Geographe Community Landcare Nursery*** *www.geographeplants.com*

Weeds are unwanted plants which threaten local plant species and damage waterways and wetlands. However identifying weeds can be challenging as many exotic varieties can be quite attractive.

For Information on Identifying Weeds:
www.geocatch.asn.au/bay-ok-gardens/weeds/

STEP 3: Selecting the Right Plants

Productive Garden Bed

Growing your own fruit, vegetables and herbs can be a very rewarding and cost saving experience. When planning a new productive garden, consider the following aspects:

- **Location** – productive plants will typically grow best in full sunlight and protected from strong winds.
- **Form** – there are a wide range of pre-fabricated garden beds available or alternatively you may choose to build your own, either raised or in ground.
- **Access** – ensure easy access to your plants is maintained, as standing on your garden bed can cause soil compaction.
- **Soil improvement and mulching** – prior to planting your garden beds ensure the soil is conditioned appropriately and finish with 50-75mm of garden mulch (Refer to 'Step 4: Ground Preparation' for further information).
- **Ongoing maintenance** – maintain your garden bed soil by pH testing on a regular basis and only fertilising as required, to help ensure the long term quality of your produce.


raised garden bed


garlic bulbs


in ground garden beds

Crop Rotation

Crop rotation is essential to the longevity of your productive garden beds and involves alternating crops over the seasons to reduce the likelihood of pest and disease issues. Incorporating legumes into the rotation (which naturally fix nitrogen into the soil) also improves soil fertility. Vegetables can be grouped into the following four categories for the purpose of crop rotation:

Whether store bought or home made, be careful not to over apply manure, or other fertilisers, to garden beds as this can cause nutrient leaching into waterways and lead to algal blooms. If the plants look healthy and happy then you probably don't need to fertilise.

PLOT 1: Legume Crops

Peas
Beans

PLOT 2: Root Crops

Onion
Shallots
Leek
Garlic
Carrots
Beetroot
Potato

PLOT 3: Fruiting Crops

Tomato
Eggplant
Capsicum
Sweet Corn
Squash
Pumpkin

PLOT 4: Brassica Crops & Leafy Green

Cabbage
Broccoli
Kale
Spinach
Silverbeet

STEP 4: Ground Preparation

For new gardens which may have previously been a construction site, the following steps will help to prepare your landscape for installation and planting:

- Remove weeds or any remaining grass.
- Remove any rubble or debris which may have been left from construction. This can be done by raking through the soil or using a sieve to remove any pieces larger than 10mm.
- Adjust levels within the garden to ensure water drains correctly and does not cause flooding.

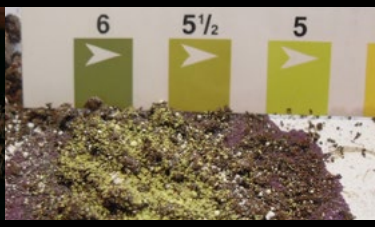
Know Your Soil and Obtain a Soil Test

Obtaining a comprehensive soil test is a thorough way to accurately assess which, if any, nutrients are deficient in your soil. Soil laboratories can undertake these tests and provide a clear, simple written report of recommended nutrient adjustments. Ideally, this test should be conducted annually.

Nutrient deficiencies are often the result of pH problems (either too acidic or too alkaline) rather than insufficient fertiliser. The ideal pH for most garden plants is around 6.5-7. You can easily test the pH of your soil by purchasing a powder or liquid self-test kit or using an electronic pH meter. The pH of your soil can be amended by either adding lime to raise pH, or adding sulphur based compounds to lower it, just remember that it is a slow process. In all cases applying organic matter to the soil assists in bringing both acidic and alkaline soils back towards neutral whilst also improving the texture and vitality of the soil.

For Information on Soil Testing:
www.geocatch.asn.au/wp-content/uploads/2024/01/Soil-and-Water-Testing-Resources.pdf





pH self test kits

Improve your Soil and Use Soil Conditioners

Geographe Bay soils are predominantly sandy soils with low nutrient content and benefit from soil conditioners to help increase microbial activity and fertility as well as the soil's moisture and nutrient retention capacity. There is a variety of soil conditioners available including compost, clay, soil wetting agents and mineral soil amendments (e.g. spongolite).

For Information on Soil Conditioners:
- ***GeoCatch, Bay OK Garden Guide***

www.geocatch.asn.au/wp-content/uploads/2020/07/Bay_OK_Garden_Guide.pdf

For General Information on the Geographe region:
- ***City of Busselton, Gardening Guide for the Geographe Bay Region***

www.busselton.wa.gov.au/resident/environment/what-to-plant-in-my-garden.aspx

STEP 4: Ground Preparation

Select the Right Fertiliser

If fertiliser is required consider a controlled release or organic fertiliser:

- **Controlled release (or slow release) fertilisers** are coated, compressed pellets that release nutrients over a period of time because they are not water soluble. They are suitable for lawn and garden areas as they reduce the incidence of fertiliser burn.
- **Organic fertilisers** are derived from plant and animal parts/residue. These fertilisers are recommended for garden and lawn application (depending on product selection) as they improve soil structure, increase water retention and introduce micro-organisms into the soil.

Using the Right Amount of Fertiliser

It is essential to remember that incorrect application or overuse of any fertiliser can cause leaching into waterways, leading to algal blooms and fish kills. With so many products available on the market it is important to follow manufacturers instructions and use homemade fertilisers carefully. Consider the following as a guide:

- **Worm residue** – Add a heaped cup of worm castings to a bucket of water. Allow to sit for a day before draining the liquid to use as a liquid plant tonic.
- **Worm casting** – Incorporate a handful into the planting holes of young plants or seedlings.
- **Aged animal manure** – Aged manure is manure that has been allowed to mature, you should never apply fresh manure. Dependent on the type of aged manure, up to 10L or one bucketful per m2 should suffice for hungry plants like veggies and fruit trees. It is best to dig in aged manure through the soil.


digging in


manual broadcast spreader


liquid applications

Apply Fertiliser Correctly

One of the best methods for mixing organic fertilisers into the soil prior to planting, is through deep soil application or 'digging in.' Another method is hand broadcasting, or using a manual broadcast spreader, which if calibrated correctly, can provide an even distribution of fertiliser to the required area.

Liquid fertiliser is an effective method for plants to uptake nutrients quickly. However it can easily leach into waterways and may burn or scorch the leaves if you use a solution which is too 'strong'. Frequent light applications are better than heavy, infrequent applications.

For Information on Responsible Fertiliser Products and Practices:

- ***Fertilise Wise***

www.fertilisewise.com.au

STEP 5: Water Efficient Irrigation

Engage an Irrigation Specialist

It is highly recommended that an irrigation specialist be engaged to design and install an irrigation system within your new garden. This will ensure that the most appropriate technology and techniques are utilised to achieve the best results.

Install an Automatic Irrigation System

Automatic irrigation controllers are programmable electronic timers which switch irrigation stations on and off at specified times. They are highly recommended because they:

- Are convenient and save time.
- Can be easily adjusted (or automatically self-adjusted) to suit the climatic conditions/ seasons.
- Reduce the likelihood of over or under watering when managed properly.


rotary sprinkler


drip irrigation


gear drive sprinklers

Select the Best Irrigation Type

The various sprinkler types and their recommended application are detailed below:

Fixed Spray Sprinklers

Recommended Application: Lawn ✔ Garden Beds ✕ Trees ✕

Fixed spray sprinklers have fixed radius heads set at a pre-set arc or a predetermined radius action. Position them so that they aren't blocked by vegetation and don't overspray onto paving.

Rotary Sprinkler

Recommended Application: Lawn ✔ Garden Beds ✔ Trees ✕

Rotary sprinklers provide even water distribution in calm wind conditions. Like all spray irrigation, large spraying distances can result in water loss through evaporation and wind drift.

Gear Drive Sprinklers

Recommended Application: Lawn ✔ Garden Beds ✕ Trees ✕

Gear drive sprinklers operate via water driven gears and usually require more water pressure to operate than rotary, spray or drip irrigation types. Gear drive sprinklers are vulnerable to water loss from wind drift and evaporation.

STEP 5: Water Efficient Irrigation

Drip Irrigation

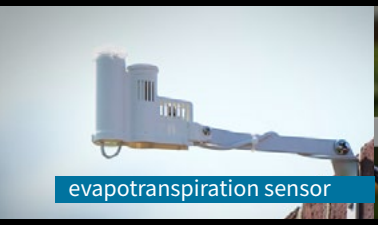
Recommended Application: Lawn ✗ Garden Beds ✔ Trees ✔

Drip irrigation is the most effective, water efficient means of irrigation available. Drip irrigation applies water on the ground and close to the root zone, effectively eliminating water loss due to overspray and wind drift. It can be mulched over, which further reduces the potential water loss through evaporation. For trees, a drip irrigation tree ring is recommended to ensure water is evenly dispersed around the trunk.

Micro Spray Irrigation

Not Recommended

Whilst micro sprays are inexpensive and easy to install, they have a number of disadvantages including higher maintenance requirements due to the spray heads clogging up, are quite easily damaged or vandalised, distribute a reduced, uneven spray pattern due to the fine droplet size, and lose a significant proportion of irrigation water due to wind drift and misting. This type of irrigation is not recommended.


evapotranspiration sensor


rain sensor


soil moisture sensor

Consider Installing Water Saving Technologies

These devices can be inexpensive and easy to fit to most automatic irrigation systems, they save water by irrigating based on the current weather conditions and can save you money in the long run by only watering when required.

Sprinkler head types have different precipitation rates and distribution areas. To ensure accurate, effective and uniform distribution across your garden you need to ensure sprinkler heads (or drip emitters) are all of a consistent type, size and model.

- **Evapotranspiration sensors** and weather stations are sensors that will adjust the irrigation cycle based on the current climatic conditions and the plant's estimated water demand.
- **Rain sensors** stop the automatic irrigation system controller temporarily when a specific amount of rainfall has occurred.
- **Soil moisture sensors** modify the pre-set irrigation run time based on the amount of moisture in the soil, i.e. if it has rained recently and the soil is moist, it will either reduce the run time or may even stop the program temporarily.

For Information on Irrigation and Water Saving Technology:

- ***Water Corporation*** *www.watercorporation.com.au*

For Information on Saving Water Around the Home:

- ***Busselton Water, Water Saving Tips***

www.busseltonwater.wa.gov.au/our-water/waterwise

STEP 6: Alternative Water Sources

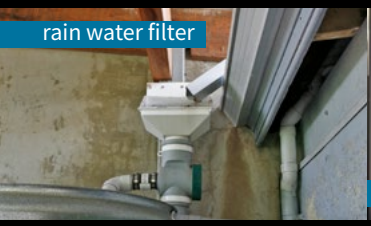
Rain Water

Rain water is collected directly from roof runoff and is usually stored in a rainwater tank. It is strongly recommended that an irrigation specialist be engaged to ensure adequate tank size to match the likely demand of your irrigation system.

Factors to consider when choosing a rainwater tank include the regional rainfall pattern, roof catchment size, roof characteristics, intended uses, cost and maintenance. Large rainwater tanks may require Local Government approval but the use of rainwater for irrigation is not subject to any watering restrictions.

What else to remember about rainwater tanks:

- Locate rainwater tanks in a shady position if possible.
- Install a first flush device to remove debris and contaminants from first rains.
- Tanks should be inaccessible other than through a lockable manhole at the top of the tank.


rain water filter


rain water tank


grey water system

Grey Water Reuse

Grey water is used household water that is captured from the bath, shower, bathroom basins and laundries, but excludes water from the toilet (black water). Kitchen water is also typically excluded. For use in the garden, grey water must first be diverted through an approved grey water diversion device; or 'grey water treatment system'.

Prior to installing a grey water system, you must obtain Local Government approval and a 'Permit to Use'. The application documentation can be found on the Department of Health's website. The "Code of Practice for the Reuse of Grey water in Western Australia 2010" sets out a number of restrictions on the application of grey water.

For Information on Rain Water Tanks and Grey Water Systems:

- ***Department of Health, Alternative Water Supply Guidelines***

www.healthywa.wa.gov.au/Articles/U_Z/Water-tanks-on-your-property

For Information on Approved Grey Water Systems:

- ***Department of Health, Approved Grey Water Systems***

www.health.wa.gov.au/Articles/A_E/Approved-greywater-systems

STEP 6: Alternative Water Sources

Grey Water Friendly Products

It's important to use products that are designed for greywater reuse to minimise impact on soil and plants. These typically contain plant based ingredients which are completely biodegradable, are low in sodium (which can lead to decline in soil structure), as well as being low in phosphorus to protect waterways. It's important to note that these detergents are still likely to be alkaline, which can increase soil pH and cause some plants to develop nutrient deficiencies after extended periods of application. It's also important to avoid applying bleach or related substances on to the garden. If you need to use these products occasionally, divert the greywater to sewer beforehand.

Tips for choosing a 'garden friendly' laundry detergent:

- Choose a liquid or concentrated powder washing detergent.
- Choose a washing detergent that is low in phosphorus and salts.
- The 'NP' symbol indicates that the product contains little or no phosphorus. Detergents containing phosphorus will be labeled with a 'P' symbol and should be avoided.
- Use detergents sparingly, we often add much more than is necessary.

STEP 7: Good Gardening Practices

Best Practice Waste Management

It is important that during the construction of a new garden, waste is minimised and dealt with using best practice methods. The following procedures may assist in reducing waste and saving costs within your new garden:

- Reduce, reuse and recycle waste wherever possible.
- Ensure any materials, dirt, site debris, etc. are stored in a protected area, where they won't be blown away or washed into nearby stormwater systems.
- Reuse any excavated soil to create undulations within the garden instead of disposing off site.
- Dispose of all plant matter waste responsibly or compost it for future garden use.
- Diseased plant matter and blown fruit should be disposed of in bins rather than compost to avoid the spread of diseases.
- Any materials requiring off site disposal, should be taken to a licensed waste recovery facility.

For Information on Local Waste Disposal Facilities:

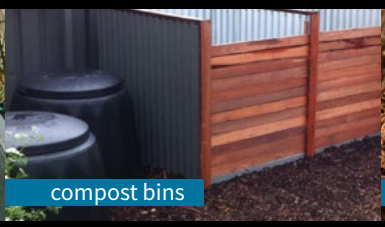
- ***Waste Disposal, City of Busselton***

www.busselton.wa.gov.au/resident/waste-and-recycling

- ***Waste & Recycling, Shire of Capel***

www.capel.wa.gov.au/services/waste-recycling


waste management


compost bins


compost

Composting

Recycling organic waste and returning it to the soil as compost increases soil microbes and soil fertility as well as improving soil moisture and nutrient retention. Here are some useful composting tips:

- When starting a compost bin, add some compost (or manure) to inoculate the bin with bacteria and kick-start the composting process.
- Herbs like yarrow and borage are excellent compost activators and contain high levels of nutrients to feed micro-organisms in the compost.
- When adding food scraps make sure they don't contain meat, dairy, onions or citrus. If you are adding food scraps regularly be sure to add dry material such as leaves, hay or shredded newspaper so the mix doesn't become too wet.
- If the material in the bin gets soggy and sour, add a couple of handfuls of dolomite lime, some additional dry material and give it a good turn with a garden fork.
- Turn compost regularly to aerate it as this helps speed up the composting process. Simply lift the bin off, place it next to the pile and fork the material back into the top of the bin.

STEP 7: Good Gardening Practices

Mulch

Mulch dramatically improves moisture retention by reducing evaporation from the soil surface. It also helps suppress weeds, insulates plant roots from extreme temperature fluctuations and provides essential nutrients as it breaks down. It's important to maintain an even 5-10cm thick layer of organic, coarse, second grind native mulch or wood chips across all garden beds.

For productive beds with regular cropping, use legume based mulch such as pea hay, lucerne or shredded lupin mulch. Legumes release nitrogen as they break down, which is great for feeding hungry plants.

Always source organic soil conditioners and mulches from an accredited composting facility.

Mulches should be weed and pathogen free.

Do not substitute mulch with manure or compost because they have a high nutrient content and will damage plants.

Reapplying Soil Conditioners and Fertilisers

Assess the condition of your garden before reapplying soil conditioners, fertilisers or other garden treatments to confirm if they really need it. This will help prevent over fertilising of garden beds and reduce the risk of nutrient runoff and leaching into groundwater. Consider the following:

- **For lawn areas –** If required, apply fertiliser to lawns in spring and early autumn, rather than the winter months when lawns become almost dormant.
- **For garden beds –** If the soil is poor and plants look hungry, apply soil conditioners as per the recommended application rates and method on the product label. For exotic garden beds, assess fertiliser needs in spring and autumn. Apply fertiliser in spring to new native gardens, and only apply on a need by need basis for established native plants.
- **For productive garden beds –** Reapply compost each time you replant and apply a soil wetting agent if the soil becomes hydrophobic. Apply fertiliser quarterly when replanting.

Managing Pest and Diseases

Pests and diseases are a reality of every garden, however good management can help to control outbreaks and simplify the treatment process. Small steps, such as incorporating a diverse range of plant varieties and practicing crop rotation, will assist in maintaining a healthy garden environment.

When using pesticides to manage pests and diseases, choose a natural, organic, biological and non-toxic product, and always follow the directions to ensure an effective and safe application. This will help to prevent unnecessary damage to the plants and local wildlife.

For Information on Pests and Diseases:

- ***GeoCatch, Bay OK Garden Guide***
  www.geocatch.asn.au/wp-content/uploads/2020/07/Bay_OK_Garden_Guide.pdf
- ***'Small Space Organics'***
  Josh Byrne, 2013 (Hardie Grant)
- ***'What Pest or Disease is That?'***
  Judy McMaugh (New Holland)

Notes

Notes

BAY OK

A GeoCatch Initiative

www.geocatch.asn.au

“A healthy bay begins in your own backyard”