

Sustainable Communities

Sustainability does not stop at the front door. Your lifestyle will have an impact far beyond your immediate home environment. This section deals with the wider implications of the lifestyle choices you make. Understanding the impact of your choices empowers you to make the best possible decisions about your home and your environment. It is the outcome of these decisions that will contribute to your community and make it a better place.

Site issues, defined as the physical changes to the land that result from building a new home, renovating or landscaping, are also important for the sustainability of your home. Site issues manifest themselves as modifications to the local habitat (biodiversity), soil and relief (topography). Noise impact has also been included here because it examines the impact of surrounding land uses on your site. Design for challenging sites helps address sites that pose structural, environmental and topographical challenges.

Aim to tread lightly and reduce the footprint of your site and lifestyle.

This section contains detailed information about:

- > Choosing a Site.
- > Streetscape.
- > Sustainable Landscapes.
- > Biodiversity On-site.
- > Noise Control.
- > Sediment Control.
- > Challenging Sites.

2.2 CHOOSING A SITE

Choosing an appropriate site, or existing home, and developing it to make the most of its natural attributes will yield significant economic, lifestyle and environmental benefits.

The information is in three parts corresponding with the usual stages of choosing a site.

- > Choosing a locality and housing type.
- > Choosing a site, existing home or block.
- > Choosing, designing or altering a home to suit your block.



2.3 STREETScape

When you choose a home you are also choosing a street and a community. A street is more than a collection of buildings and trees. Well-designed and cared-for streets encourage connected, inclusive, supportive and safe communities.

A good community consists of diverse elements, which blend into a vibrant, functional and well connected whole. Diversity of age, ethnicity and means are all essential ingredients. In the same way, a good street consists of houses that have their own character but fit together in a complementary, respectful way. A good street improves quality of life in numerous ways:

- > Promotes community interaction.
- > Provides a safe environment.

- > Enhances the character and comfort of the neighbourhood.
- > Encourages people to walk for short trips.
- > Increases property demand and resale value.



How to enhance the quality of your street:

- > Understand the character of your local neighbourhood and design your home or addition sympathetically.
- > Face houses towards streets, parks and open space to improve visual access and security. This needs to be balanced with good orientation for passive heating and cooling.
- > Set garages and carports away from the house frontage to minimise their visual impact.
- > Limit the width of driveways and use shared driveways where possible.
- > Plant trees to enhance the quality of the street.
- > Avoid high walls and hedges on the street boundary as they isolate the home from the neighbourhood.
- > Be a good neighbour and respect your neighbours privacy, sunlight and views.

2.4 SUSTAINABLE LANDSCAPES

Sustainable landscaping is about putting back much of what was in place before development.

Sustainable landscaping is not only about planting natives. It can include food-producing or permaculture gardens and planting deciduous shade trees to control solar access, provide habitat and shelter.

In dry areas, that were not formerly wetlands, planting low water-use indigenous vegetation (xeriscaping) greatly reduces water consumption.

Indoor plants can be used to filter and improve indoor air quality.

Vegetation can be used for screening, as a windbreak and to frame select views.

The topography of a garden should ideally reflect the original relief to minimise the impact on drainage patterns but bunds can sometimes be created to enhance visual and/or acoustic privacy.



2.5 BIODIVERSITY IMPACTS ON-SITE

Local biodiversity is the variety of life forms, and the ecosystems of which they form a part, that exist on your property. This fact sheet examines ways to minimise the destruction of biodiversity and to retain as much habitat as practicable, while accommodating your home.

Replanting cleared sites is definitely no substitute for leaving native vegetation intact. Once land is cleared it is almost impossible to recover the full suite of indigenous species, remove introduced species and restore ecological processes. To minimise biodiversity impacts:

> Avoid unnecessary disturbance to vegetation and soil.

> Limit clearing outside the building footprint. Vehicle tracks, workers' carparking and rubbish dumps should be concentrated in one area.

> Retain significant habitat trees.

> Rehabilitate disturbed areas with saved topsoil and salvaged plants.

> Use indigenous (local native) species in the garden.

> Maintain links between adjacent bush and your garden.

> Avoid introducing environmental weeds into your garden.

2.6 TRANSPORT

Urban transport is an important national issue. About two thirds of Australia's population lives in capital cities. Decreased motor vehicle use and increased use of public transport, cycling and walking are vital to creating a healthy, liveable city, now and for future generations. A sedentary lifestyle is a health risk. A brief walk to the bus or train each day can improve your health and lower stress levels.



Some of the problems of car dependency include:

> Urban sprawl.

> Depletion of urban spaces.

> Greenhouse gas emissions.

> Air and noise pollution.

> Depletion of finite oil reserves.

> Loss of valuable bushland and farmland to roads and car parks.

> Communities fragmented by roads.

> Flooding and water pollution from road run-off.

> Death and illness from air pollution, accidents and sedentary lifestyle.

How you can help:

> Avoid car dependency by choosing to live in an established area close to public transport and other services.

> Walk, ride a bicycle or take public transport instead of driving.

> Shop locally and buy locally made goods.

> Lobby governments for improved public transport services and comment on development proposals.

> Work from home.

Do you want to live in an environment designed for you or for your car?

2.7 NOISE CONTROL

Noise is 'disagreeable sound'. The perception of noise is therefore highly subjective.

Noise can be managed through careful site choice such as finding a property that is buffered from busy roads and industry.

Good design can also assist in managing external noise impacts. This can be achieved through site planning and use of appropriate materials and construction techniques.

Some design solutions:

> Locate quiet rooms as far away from noise sources as possible, without compromising passive solar design principles.

> Install windows away from noise sources, if possible.

> Position noisy areas together and away from quiet areas.

> Avoid placing laundries, bathrooms or living rooms next to, above or below bedrooms without adequate sound insulation.

> Provide extra soundproofing for teenagers' rooms and locate them away from adult living and sleeping areas and neighbours.

> Locate driveways/garages away from bedrooms and living rooms.

> Appropriate material selection can reduce noise levels within the home.

Ask for design specifications for noise levels before buying a multi residential unit and ask your solicitor to link them to your contract as a performance measure. This will give you more options if you discover a problem after moving in.

2.8 SEDIMENT CONTROL

Sediment control practices are used on building sites during construction to prevent sand, soil, cement and other building materials from polluting waterways.

Control measures usually require little effort. Benefits include cleaner waterways, healthier aquatic life and reduced clean-up costs to the community. Added benefits to the builder include improved site conditions and wet weather access. Time losses due to waterlogging will also be minimised.

Some sediment control measures:

- > Divert uncontaminated water away from the construction site.
- > Minimise erosion by minimising site disturbance, stabilising disturbed surfaces and securing material stockpiles.
- > Prevent sediment contaminated water leaving the construction site by using a contained wash area.
- > Use diversion devices such as channels and earth banks to divert clean stormwater away from the construction site. This reduces potential for stormwater to become contaminated with sediment.

Most local councils have written guidelines on erosion and sediment control. Ask them for information pertaining to your area.

Developments likely to create sediment pollution to land or receiving waters downhill may need to submit erosion and sediment control plans for approval by your local council before work starts.



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2.9 CHALLENGING SITES

Challenging sites is about addressing physical and social factors that may constrain the design of your home and increase the environmental impact. These constraints generally relate to the following areas:

- > Structural: topography, natural and artificial structures.
- > Environmental: climatic, health, visual and acoustic parameters.
- > Spatial: size, shape and volume.
- > Location: remoteness, proximity, servicing.
- > Ecology: ecological value, landscaping.

It may be environmentally preferable not to build on a challenging site because of the larger impacts that result from addressing its constraints. On the other hand, such sites often provide exciting opportunities for creating a sustainable home and are worth investigating for their design opportunities. A number of approaches are identified that can be applied to address these constraints and achieve sustainable outcomes.

