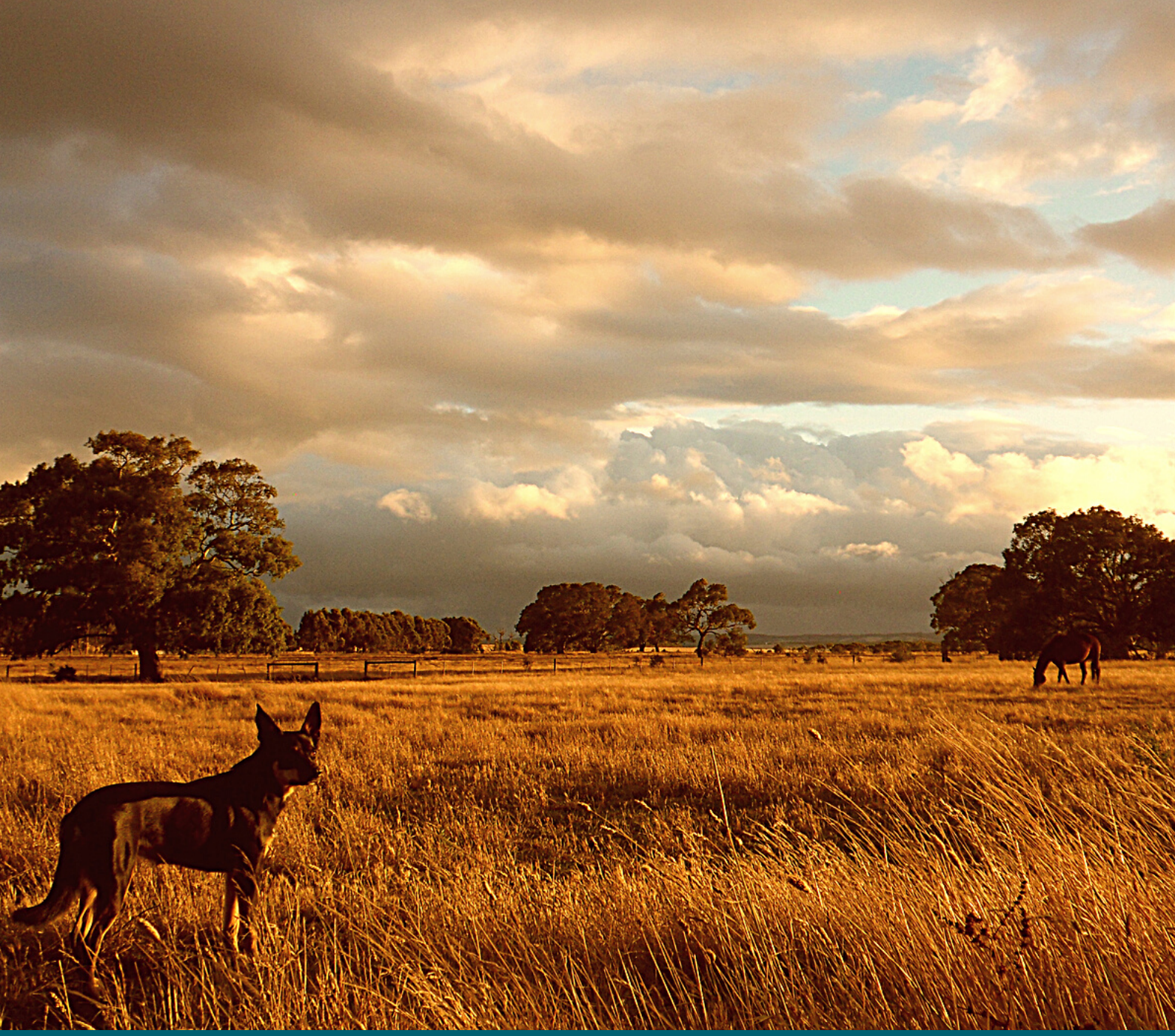

SEPTEMBER 2022

Hinterland Design Guidelines

Prepared by INCLUSIVE DESIGN

Surf COAST SHIRE

Disclaimer

The material contained in this publication is offered by Surf Coast Shire solely for information purposes. While all due care has been taken in compiling these guidelines, Surf Coast Shire takes no responsibility for any person relying on the information and disclaims liability for any errors or omissions in the publication.

Conforming to this document does not automatically guarantee Council approval of your design. Diagrams are indicative and opportunities and constraints will vary from site to site. Multiple planning controls can also apply to a property which the guidelines have not considered. For example overlays identify natural hazards or attributes occurring in a localised area. These include the Bushfire Management Overlay, Salinity Management Overlay, Vegetation Protection Overlay, Flood Overlay and Significant Landscape Overlay.

Please contact the Surf Coast Shire to discuss which controls affect your property and what this means for your design.

Contents

Part 3

Part 1

1. Executive summary

The ***Rural Hinterland Futures Strategy,*** adopted by Council in May 2019, is an economic development and planning strategy that provides the strategic framework for future land use and economic stimulation of the Shire's rural areas. The vision of the strategy is for the hinterland to be a key contributor to the Surf Coast economy by 2040. This will be activated by drawing some of the 2.1 million visitors to the Surf Coast Shire into the hinterland to new destinations, events and experiences such as outdoor recreation, culture, arts, food and wine.

The strategy recognises that the creation of these new destinations will require careful planning to ensure farming continues to be the primary purpose of the hinterland and environmental and landscape values are not compromised. The rural landscapes in the hinterland are highly valued by the community and visitors, and an important element in its economic future. They also form part of an important cultural landscape for Aboriginal people.

Principle 3 of the strategy is that;

Development (built form) should avoid negative impacts on: environmental and landscape values and adjoining agricultural uses through appropriate siting and detailed design measures.

These guidelines have been developed to ensure land use conflicts can be managed and identify ways to achieve responsive design outcomes that will protect the important environmental and landscape character.

2. Introduction

ABOUT THE GUIDELINES

These design guidelines are intended to help landowners, developers and their designers prepare a design that responds sensitively to surrounding uses, landscape and ecological qualities. They outline the expectations and constraints of building in this area. The guidelines are in three parts.

Part 1: Explains why the guidelines have been prepared, where they apply and how they fit into the planning system.
Part 2: Outlines what the guidelines seek to achieve.
Part 3: Provides guidance on how the design priorities outlined in part 2 can be achieved.

WHY ARE THE GUIDELINES REQUIRED?

The Surf Coast Shire community and it's visitors highly value the Hinterland for its landscape setting, which includes the internationally renowned Great Ocean Road and Bells Beach. It provides important green breaks between urban settlements, particularly Geelong and Torquay.

These guidelines focus on the landscape characteristics and design solutions that will help a proposal sit well within its setting. This will be of particular importance along key tourist routes including the Great Ocean Road, Deans Marsh-Lorne Road, Deans Marsh-Winchelsea Road and Cape Otway Road.

The hinterland is home to many endangered species and ecologically significant sites including the Ramsar listed Lake Murdeduke. The guidelines have been developed to help new proposals, through careful site planning and design, preserve the dominance of the landscape over built form. Protecting environmental assets and scenic vistas and the natural appeal of the Surf Coast Shire.

The Hinterland supports productive agriculture and tourism businesses that are crucial to the local economy. Agriculture is the primary focus within the Farming Zone and responsive siting is critical to ensure agriculture can continue to expand, innovate and evolve.

WHERE DO THE GUIDELINES APPLY?

The guidelines apply to the Hinterland of the Surf Coast Shire. The Hinterland covers all private land outside a town or urban settlement boundary, shown indicatively in figure 2 below. The guidelines will need to be considered for all planning permit applications for a development on land zoned either Farming Zone (FZ) or Rural Conservation zone (RCZ).

3. About the hinterland

The hinterland forms part of Melbourne's food bowl and is an important contributor to the regions food security. It boasts a long agricultural history in the dairy, beef, sheep and grain industries.

It contains diverse and scenic landscapes featuring the rolling Barrabool hills and Otway foothills, the open Winchelsea plains, inland lakes and waterways, native vegetation, a dramatic coastline and the backdrop of the Otway Ranges.

The picturesque setting, the quality local produce and close proximity to Melbourne and Geelong makes the hinterland an ideal tourist destination. Small boutique businesses are growing in numbers, particularly in the agri-food and agriculture sectors. These businesses capitalise on the assets that the Hinterland has to offer and make a significant contribution to the local economy.

These new ventures, along with more traditional agricultural operations, contribute significantly to the region’s diversity, longer-term sustainability and overall productivity. State and Local policy within the Surf Coast Planning Scheme seeks to encourage growth in traditional and more innovative farming practices.

The siting of new development is a key contributor to its success. Land use conflicts can arise when sensitive uses like dwellings are located too close to agricultural ventures. Separation is critical and directing urban type activities to urban areas where it can best be accommodated.

Key features of the hinterland

Figure 1: Map of key features

THE HINTERLAND COMPRISES 1,020 SQUARE KILOMETRES (OR 60 PERCENT) OF THE SURF COAST SHIRE.

Much of the hinterland is among the highest fire risk areas in the world. A Bushfire Management Overlay (BMO) in the Surf Coast Planning Scheme applies to these areas. Before deciding on what venture you wish to undertake in the hinterland, it is important to first understand the risks and difficulties associated with building or undertaking a venture in high fire risk areas. You may be highly restricted for safety reasons.

The Surf Coast Shire and the Country Fire Authority (CFA) have a number of publications which provide guidelines for development in rural areas and these shouldbe your starting point. Visit the CFA web site for ore information.

The hinterland towns and major routes

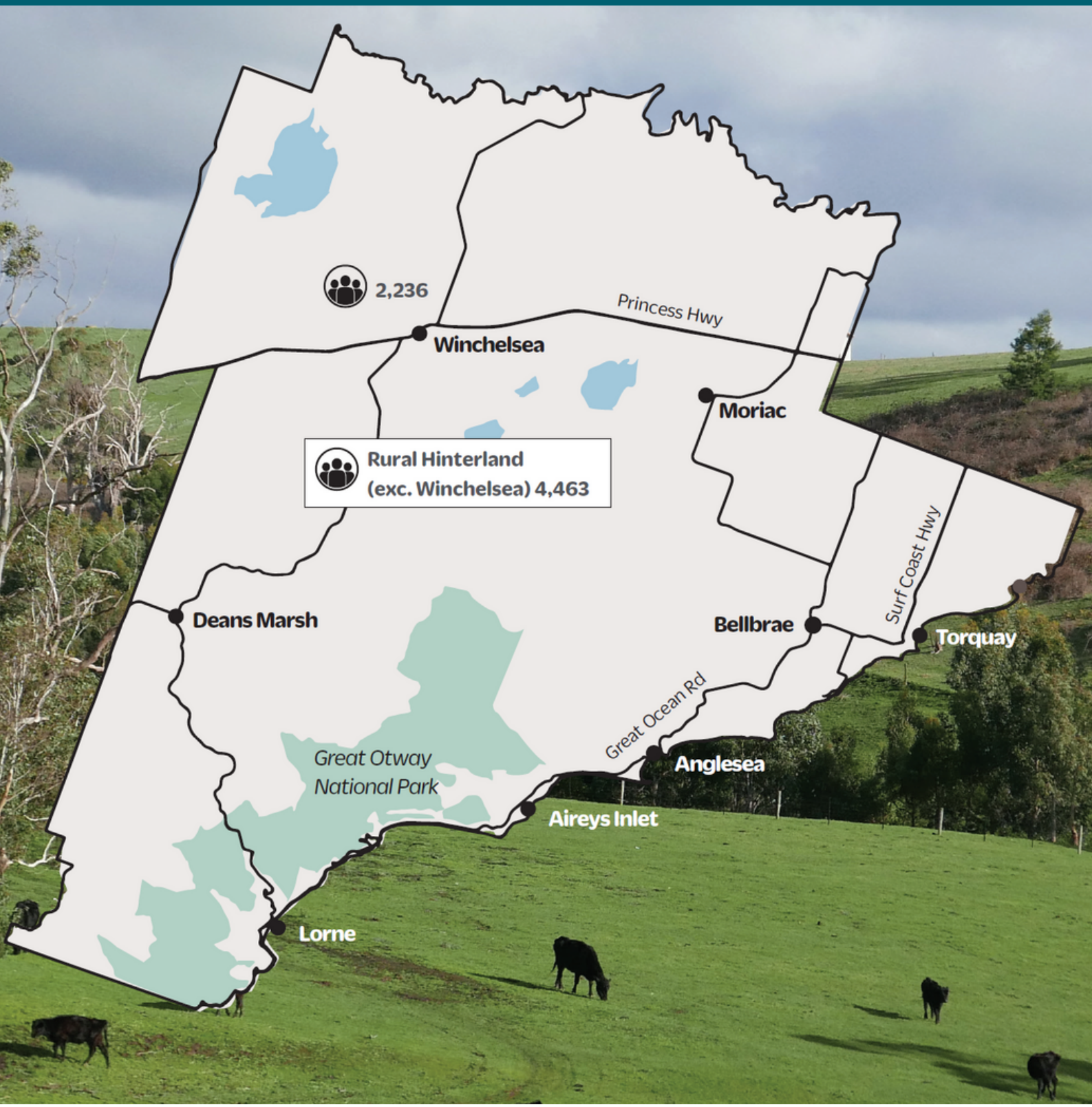

Figure 2: Map of the hinterland

4. How do the guidelines fit into the planning scheme?

The guidelines are a background document in the Local Planning Policy Framework. This means that they will be used to inform the planning permit decision making process. They focus on siting and design and provide guidance on how best to meet the objectives and strategies contained within the **Planning and Local Planning Policy Framework of the Surf Coast Planning Scheme**, particularly Clause 15.01-6L (Design for rural areas).

They also provide direction on how the issues relating to agriculture, dwellings and design and siting, identified within the Farming Zone (FZ) and Rural Conservation Zone (RCZ) can be met.

The following issues under the Farming Zone (FZ) are discussed in these guidelines, providing design solutions for how to:

- locate buildings in one area to avoid any adverse impacts on surrounding agricultural uses and to minimise the loss of productive agricultural land.
- Avoid locating a dwelling where it will result in the loss or fragmentation of productive agricultural land.
- Minimise the impact of the siting, design, height, bulk, colours and materials to be used on the natural environmental, major roads, vistas and water features.

- Avoid siting a dwelling where it could be adversely affected by agricultural activities on adjacent and nearby land due to dust, noise, odour, use of chemicals and farm machinery, traffic and hours of operation.
- Avoid siting a dwelling where it could adversely affect the operation and expansion of adjoining and nearby agricultural uses.
- Consider the impact on the character and appearance of the area or features of architectural, historic or scientific significance or of natural scenic beauty or importance.

And under the Rural Conservation Zone (RCZ):

- protect and enhance the natural environment of the area, including the retention of vegetation and faunal habitats and the need to revegetate land including riparian buffers along waterways, gullies, ridgelines, property boundaries and saline discharge and recharge areas.
- minimise any adverse impacts of siting, design, height, bulk, colours and materials to be used on landscape features, major roads and vistas.
- minimise the visual impact of existing and proposed infrastructure services on the landscape.
- minimise adverse impacts on the character and appearance of the area or features of archaeological, historic or scientific significance or of natural scenic beauty or importance.

HOW TO USE THE GUIDELINES

The guidelines are intended to be used as a planning application reference guide for developers, applicants and decision makers. They provide an indication of the issues and considerations that might arise when determining the location and design of development in the Surf Coast's hinterland.

It is important to note that these guidelines are indicative only. The hinterland covers a vast area, encompassing many different types of landscapes and farming and tourism uses. It is impossible to be definitive about what development will be acceptable on a particular site.

For this reason these guidelines should not be read in isolation. They form part of a broader package of documents that seek to protect the productivity of agricultural land, significant landscapes, environmental assets and the Great Ocean Road Region.

OTHER RELEVANT DOCUMENTS

Relevant documents include:

Surf Coast Shire

- Rural Hinterland Futures Strategy,
- Surf Coast Shire's Sustainable Design book,
- Landscaping Your Surf Coast Garden for Bushfire.

Department of Environment, Land, Water and Planning

- Great Ocean Road Region Landscape Assessment Study,
- Coastal Spaces,
- Siting and Design Guidelines for structures on the Victorian coast,
- Surf Coast Distinctive Areas and Landscapes ,
- Green Wedge and Melbournes Agricultural Land.

WWW.SURFCOAST.VIC.GOV.AU/HOME

WWW.DELWP.VIC.GOV.AU

5. Rural Hinterland Futures Strategy

The Rural Hinterland Futures Strategy, 2019 provides the context to this document. It contains five key objectives and seven guiding principles, outlined below. The vision of the strategy is that:

The hinterland will become a key contributor to the Surf Coast economy and renowned visitor destination by 2040.

The Strategy highlights that tourism, lifestyle living and productive farming can sometimes be at odds with one another and that responsive siting and design can help minimise those conflicts. The guidelines provide illustrated examples of what responsive siting and design might entail in an attempt to avoid or minimise these conflicts.

Strategy objectives

- Elevate the value of our environment and rural landscapes.
- Encourage agriculture and innovative businesses.
- Stimulate agri-tourism to enhance the Surf Coast as a visitor destination.
- Support tourism activities which complement the agricultural, landscape, and environmental values.
- Secure enabling infrastructure to deliver the vision and objectives of the strategy

PRINCIPLES FOR BALANCE

The Rural hinterland futures strategy has 7 principles to help find balance and set priorities for siting and design in the hinterland.

Principle 1: *Agriculture will remain the primary purpose of land in the Farming Zone.*

Principle 2: *New uses and development should not result in an unreasonable loss of productive capacity of agricultural land, or impact on the productivity of existing adjoining agricultural uses.*

Principle 3: *Development (built form) should avoid negative impacts on: environmental and landscape values and adjoining agricultural uses through appropriate siting and detailed design measures.*

Principle 4: *New industrial, storage (warehouse), or manufacturing uses on Farming zoned land should have a direct relationship with the agricultural production of the land or surrounding district.*

Principle 5: *Environmental values and rural landscape features will remain the defining physical and visual attributes of the hinterland.*

Principle 6: *Tourism and agritourism attractions should be clusrtered around key nodes in the hinterland.*

Principle 7: *Discretionary use and development will consider fire risk including landscape type, vehicle access, the ability to mitigate the risk and the capacity of the emergency services.*

The **Hinterland Futures Strategy, 2019** divides the Surf Coast Shire into three geographic areas that are well suited to different types of farming/tourism activities, these are:

- Intensive and commercial farming,
- Agribusiness and commercial farming.
- Tourism/agri-tourism

These areas (shown in figure 3) are located at Clauses 14.01-2L and 17.04-1L of the Surf Coast Shire planning scheme and guide discretionary land use.

Although the guidelines discuss siting issues the focus is on general siting principles. For specific guidance on buffer requirements between sensitive land use and select farming activities please refer to the relevant code of practice. Codes of practice are incorporated documents located at **Clause 72 of the Surf Coast Planning Scheme.**

WWW.PLANNING.VIC.GOV.AU/SCHEMES

Indicative land use map

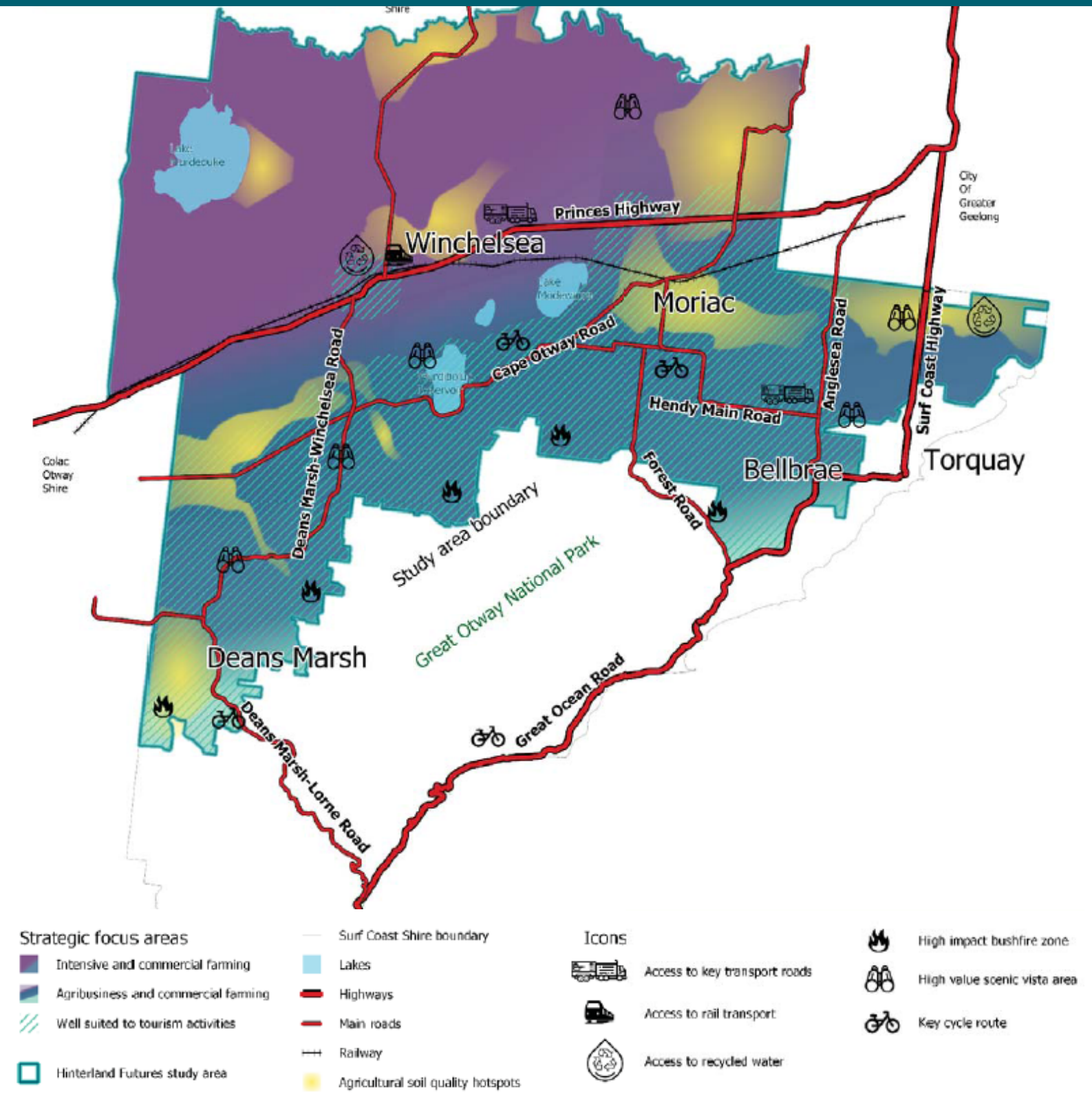

Figure 3: Strategic focus areas

Part 2

1. What do the guidelines seek to achieve?

Design is often a matter of balance. Design that is considered to balance the objectives and principles of the Rural Hinterland Futures Strategy well, will respond to the following four overarching design priorities;

- Being a good neighbour,
- Protecting the landscape,
- Sustainable development,
- Minimising vulnerability.

Being a good neighbour to surrounding properties is about avoiding or minimising conflicts between land uses. Agriculture is the primary purpose of the Farming Zone and will remain the dominant land use in the hinterland.

Protecting the landscape ensures the valued aesthetic characteristics of the Surf Coast hinterland remain the dominant feature.

Sustainable development provides guidance on responsive design that will help minimise the environmental footprint of new development.

Minimising vulnerability from natural hazards (such as bushfire, flooding and land instability), improves community and asset resilience to such events.

Personal desires and tastes will always influence a design (as an example, minimising costs or locating a development to enjoy the best views). Although valid and important they are not the only priorities. The Hinterland supports local businesses and is an asset to the whole community. Reconciling the above design priorities is essential and a proposal that fails to meet them may not be supported. Each site will differ and design constraints will vary in their significance depending on the sites geographic location.

BEING A GOOD NEIGHBOUR

Prioritising agriculture as the primary purpose of land in the Farming Zone

Surf Coast is a beautiful place but its agricultural areas are also working landscapes, bringing with them all the unavoidable noise and smells and long working hours that comes with farming. Non-agricultural development often come with expectations that are in conflict with farming practices. These guidelines seek to 'build in' qualities that minimise the sensitivities between different uses so that farmers, as the priority, can continue farming.

The Rural Hinterland Futures Strategy encourages the co-location of similar farming uses as an additional solution. This co-location will also assist in the sharing of work force, resources and access to infrastructure (such as highways, rail or recycled water).

Managing farming / lifestyle expectations are outlined in the Surf Coasts publication:

'Rural Life - what to expect'.
WWW.SURFCOAST.VIC.GOV.AU/HOME

PROTECTING THE LANDSCAPE SETTING

Elevating the value of our environment and rural landscapes

The hinterland provides the setting for internationally renowned attractions such as Bells Beach, the Great Otway National Park and the Great Ocean Road. Its beauty and proximity to Melbourne and Geelong make it a highly sought after place for lifestyle change, tourism and urban growth. It also forms part of an important cultural landscape for Aboriginal people.

The landscape and ecological qualities that underpin the hinterlands character are highly valued by the community and are a key attribute to the local economy. Being so highly sought after makes it vulnerable to over development and inappropriate development.

Development can be located or designed in such a way that its impact on its surroundings is maximised or minimised. High profile architecture can add visual interest to a destination however it is preferable that architectural efforts are used to make the building recessive; allowing the landscape to remain the dominant feature.

The guidelines in **Part 3** outline how a building might be sited and designed within the landscape to protect and enhance the areas built and natural landscape values.

SUSTAINABLE DESIGN FEATURES

Preserving the natural environment and building resilience and environmental leadership

Sustainable design is crucial for our future well-being. It includes the protection and enhancement of our biodiversity assets as well as designing for a reduced ecological footprint.

Part 3 of the guidelines outline how a building might be sited and designed within the landscape to protect biodiversity and reduce energy consumption and ongoing energy costs.

Design tips for smarter construction in the Surf Coast can be found in:

'Sustainable Design Guidelines'. WWW.SURFCOAST.VIC.GOV.AU/HOME

MINIMISING RISK FROM NATURAL HAZARDS

Careful building and landscape design can help protect life and property from risks such as fire and flood

Despite its great beauty, living and working in the hinterland means exposure to the impacts of drought, bushfire and flood and other extreme weather events as well as challenges that may arise as resources continue to be depleted.

Part 3 of the guidelines outline how a building might be sited and designed within the landscapes to ensure the risks associated with these events can be mitigated as much as possible.

Part 3

1. Design guidelines

This part of the guidelines outline the design characteristics that will help designers achieve the **Four Design Priorities** of:

- Being a good neighbour,
- Protecting the landscape,
- Sustainable design, and
- Minimising risk.

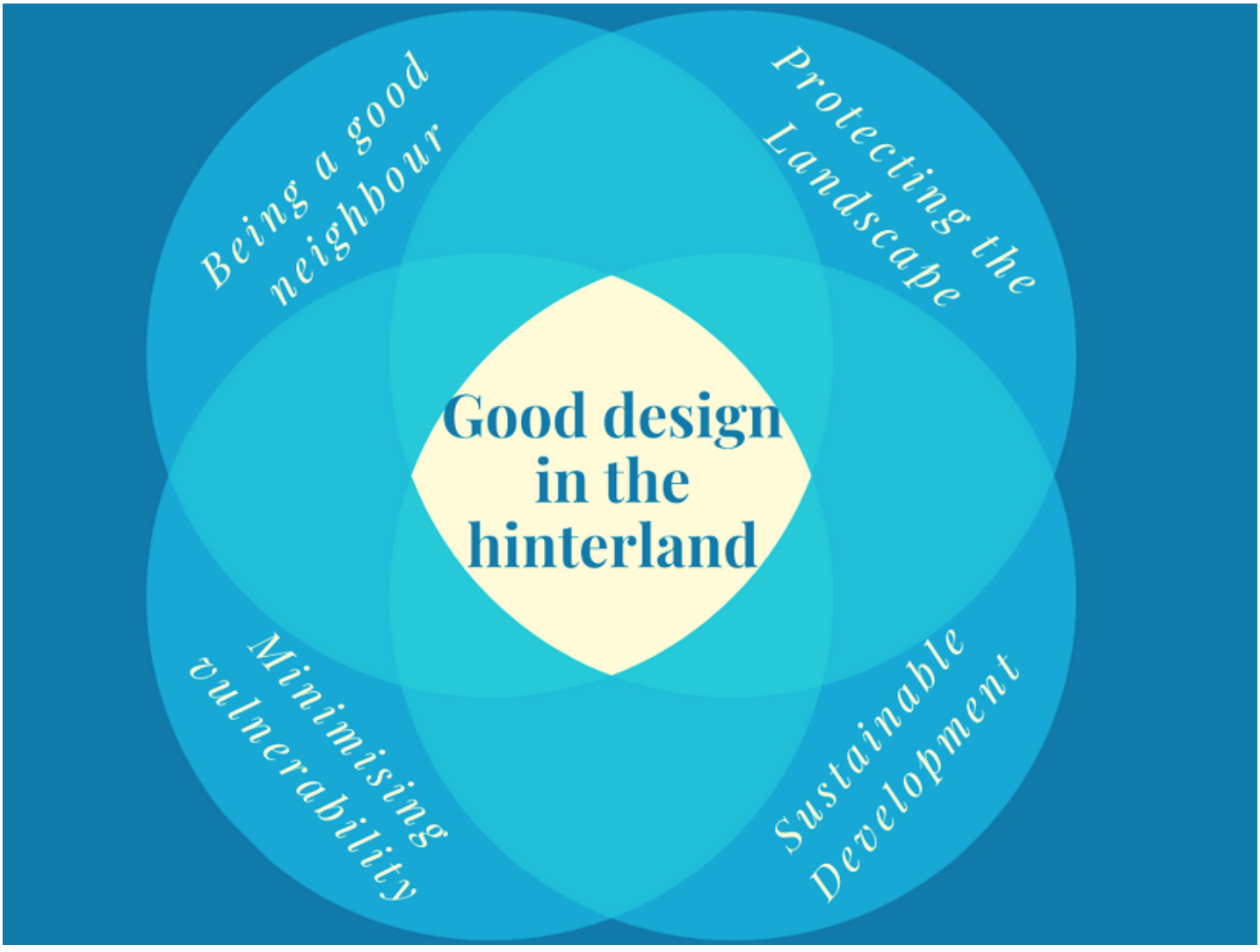

Figure 4: Design priorities for good design

The four design priorities shown in figure 4 are explained and illustrated in more detail in the following section, under the design tasks of:

- Understanding the site and the setting,
- Siting your development,
- Orientating your development,
- Designing buildings to fit in, and
- Landscaping your site.

For each task there is a:

- **Guiding principle** and **Design response** options

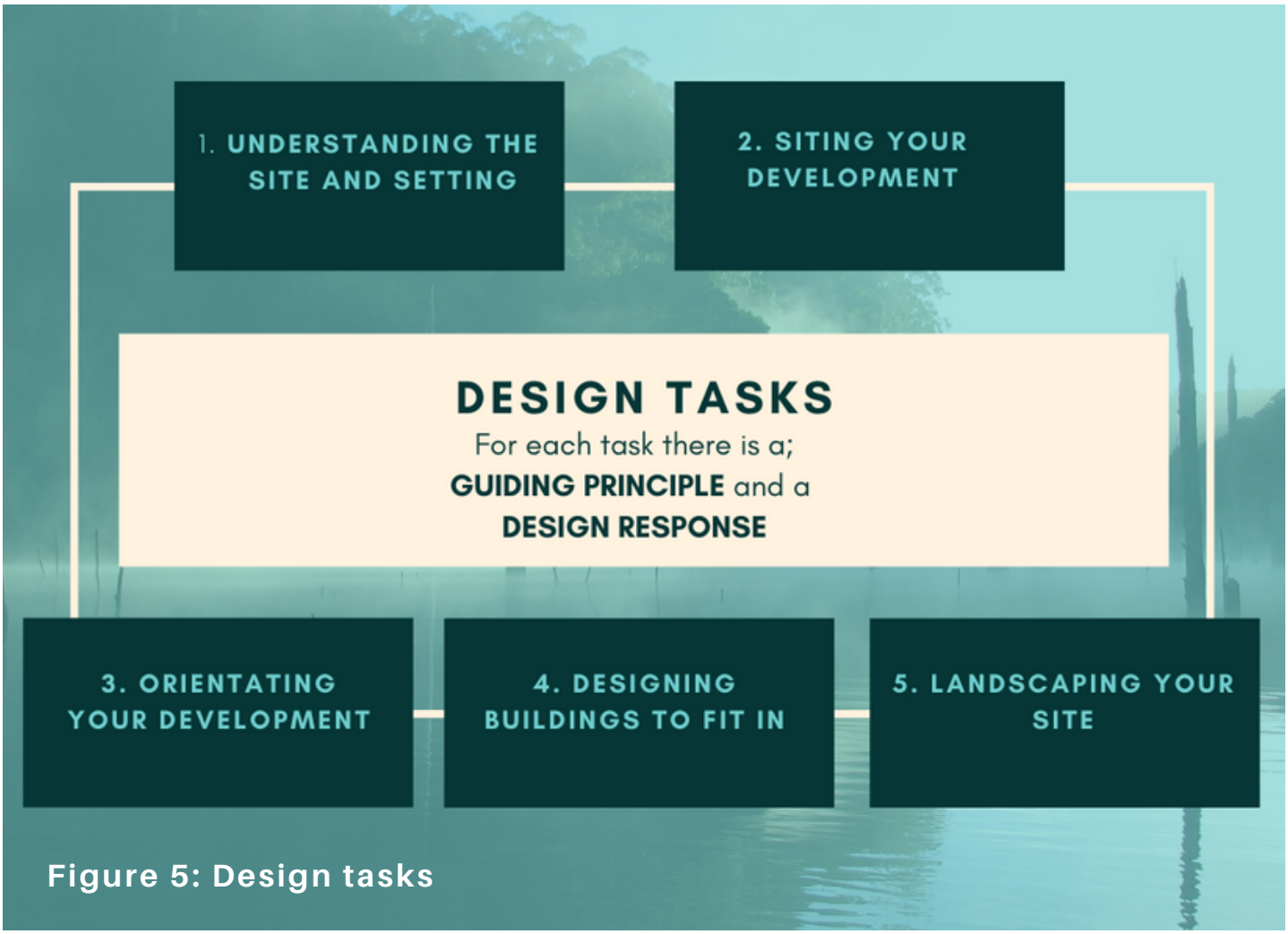

Figure 5: Design tasks

A variety of design options are presented in table form below. The design characteristics that are considered to comply are presented within the tables in **green**. Design characteristics that are variable in their impact are indicated in **amber**. Those that could have a detrimental impact are indicated in **red**. Where no design option is available the square remains blank.

Illustrated examples are provided showing designs that comply and don't comply in a hypothetical scenario. The guidelines also include comments that can be used to inform your design decisions, helping to balance characteristics that may be at odds with one another.

2. Reconciling the guidelines

The inclusion of many of these contributory or 'green' characteristics in a design will assist a design to fit within the landscape setting. But it is not always necessary or indeed possible to embody all the 'green' characteristics in a single design.

It is further acknowledged that with careful design, good design outcomes can still be achieved outside of those characteristics identified in the green statements. However in such cases a statement will be required, that explains how the alternative design technique achieves the four design priorities.

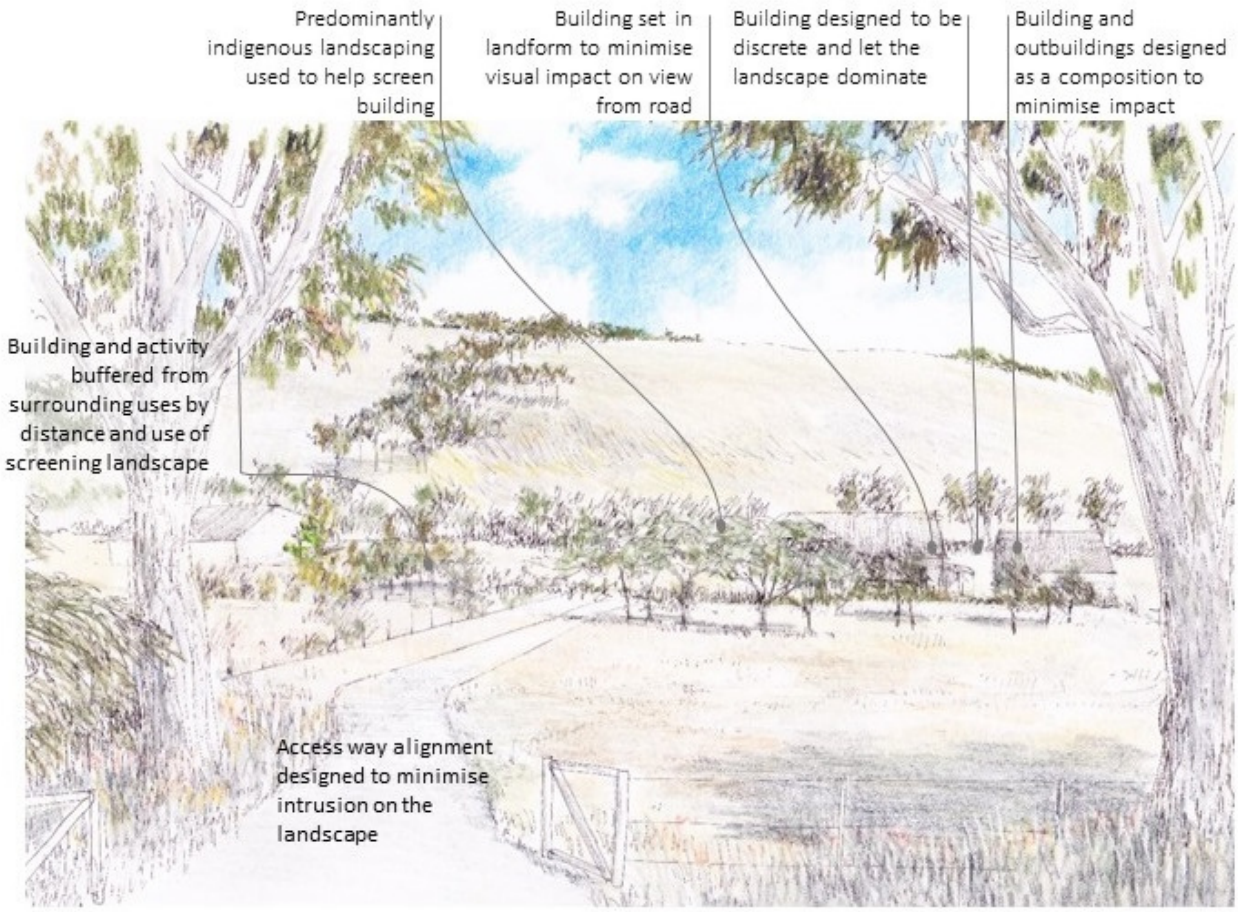

Figure 6: Reconciling the four Design priorities

Figure 6 provides an illustrated example of co-ordinating many design decisions to reconcile the four design priorities. It is also recognised that in some circumstances it may be difficult to reconcile some or all of the green characteristics.

Example 1: The design outcomes under 'sustainable design' that require a development to orientate the windows of habitable rooms to the north may clash with the green design outcome under 'being a good neighbour' that requires a development to be screened from sensitive uses and those uses lie to the north. In such circumstances the design should indicate the screening and/or management measures that will be employed to ensure compliance with both.

Example 2: Achieving a high aesthetic landscape standard does not compensate for a development that generates unacceptable levels of noise or traffic and is not a 'good neighbour'.

Characteristics are not transferable. Failure to meet one design priority cannot be reconciled by meeting another.

Good design needs to carefully consider each of the four design priorities

3. Understanding your site and it's settings

MANAGING CONFLICTS THROUGH SITING CONSIDERATIONS

To ensure that your development respects the sensitivities of surrounding uses, it is essential to understand your site and its surroundings. Understanding the setting can help avoid amenity problems in the future. The needs of landowners can differ dramatically from one another. Giving careful consideration to the proximity of nearby sensitive uses and interfaces is crucial.

These may include farming uses (such as intensive and commercial farms), tourist activities (outdoor adventure, food and drink and accommodation) and lifestyle properties (rural dwellings).

It is important to consider what your development will be sensitive to and what developments will be sensitive to you. This will help you decide the suitability of your site for development and how it should address its surroundings.

Potential amenity conflicts are shown in the diagrams below.

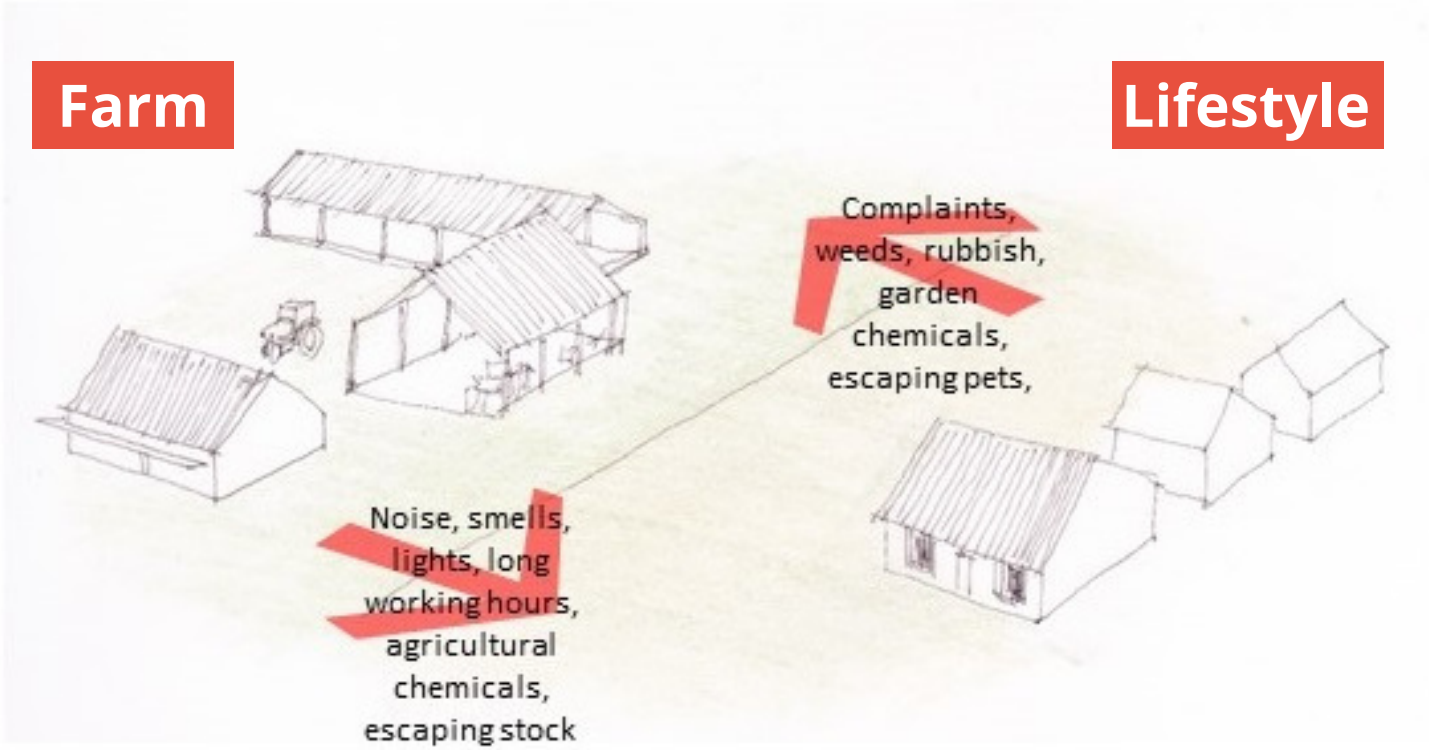

Figure 7: Potential land use conflicts (agriculture - lifestyle property)

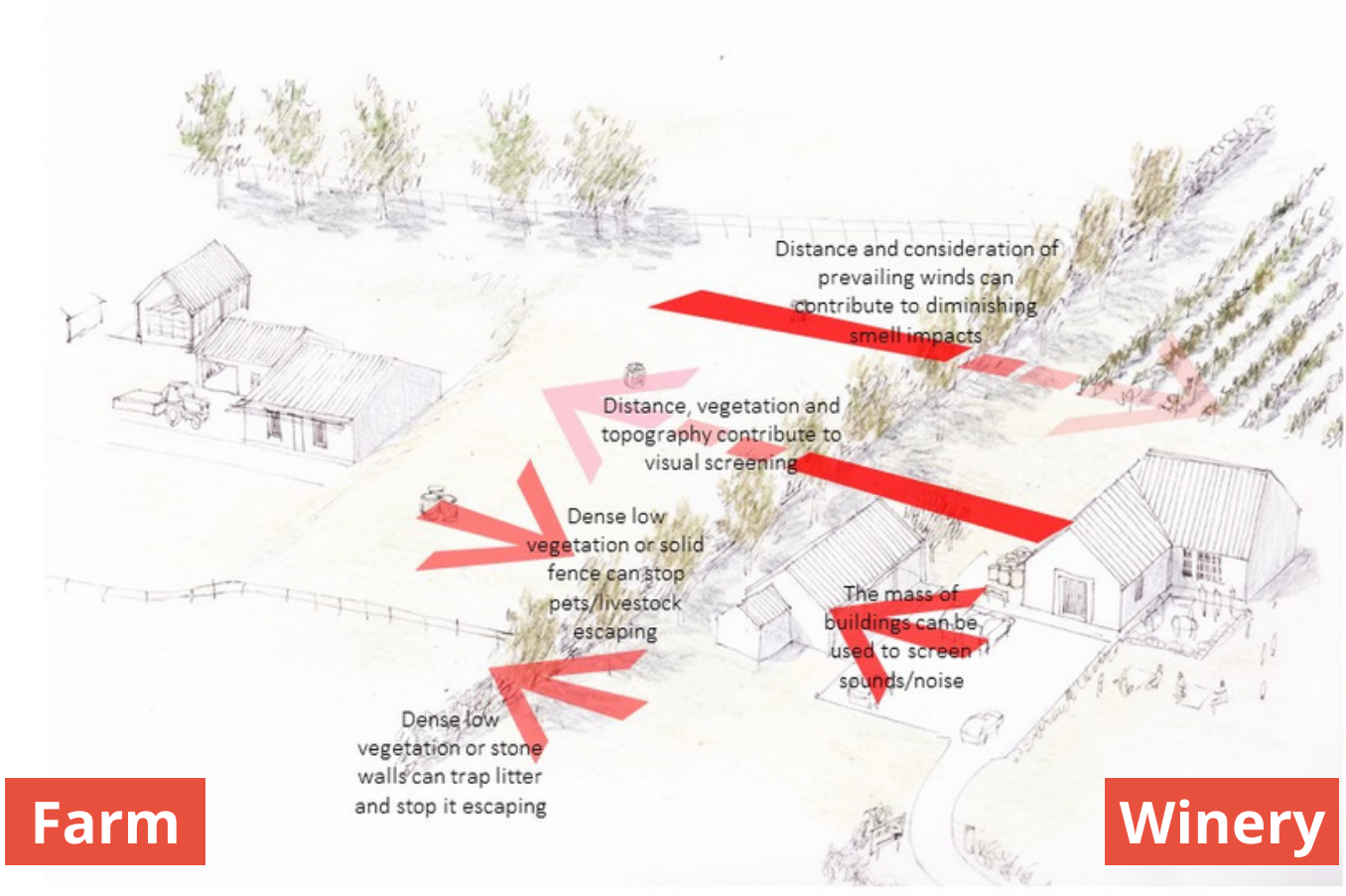

Figure 8: Potential land use conflicts (agriculture - tourism)

MAXIMISING BUSINESS OPPORTUNITIES THROUGH CO LOCATION

Careful site selection can improve access to surrounding uses, maximise existing infrastructure and share resources with surrounding businesses.

For example: Clustering places that rely on high levels of visitation can create a honeypot of attractions, enhancing the appeal of a destination. These may include specialty café's, cellar door outlets and larger rural produce shops.

RESPONSIVE DESIGN

Responsive design is about understanding your site and its surroundings

Every site has different sensitivities, qualities and capacity for development. A site analysis will identify matters to respond to in the design response and help a development fit into its surroundings.

Every site has different sensitivities, qualities and capacity for development. A site analysis will identify matters to respond to in the design response and help a development fit into its surroundings.

A **site and context analysis** should cover the site and adjoining properties. Its purpose is to identify any sensitivities both on and off the property that the design needs to respond to. It should establish the developments 'visual catchment' (this is where it can be seen from). Noting that, it will rarely be a consistent distance around the property.

The visual catchment should identify key viewpoints and vistas from main roads, scenic viewpoints and adjacent properties. The visual impact of a development will be an important factor influencing decision making.

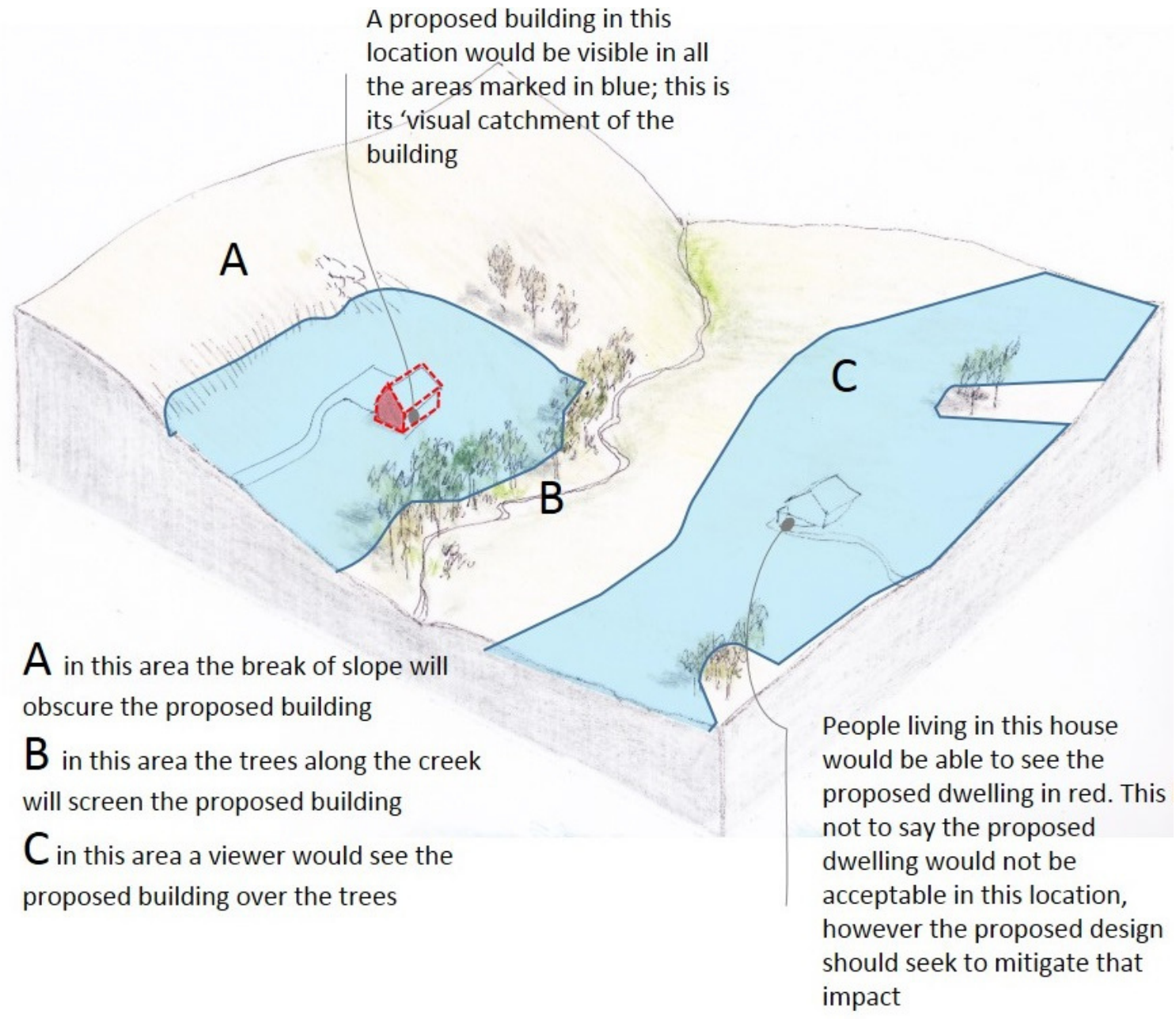

Figure 9: Example site and context analysis - visual catchment

SITE AND CONTEXT ANALYSIS PRINCIPLE: Design decisions are informed by an understanding of the qualities and sensitivities of the site and its surrounds

The site and context analysis should contain the following information:

- Surrounding uses and locations of buildings,
- Location and type of site Boundaries,
- Buildings (existing and proposed),
- Landscape features such as areas of indigenous or distinct vegetation, rocky outcrops, rivers, creeks or drainage lines,
- Access points to the site,
- An indication of the visual catchment for the development. This will be multiple points for large or complex proposals.
- Prevailing and dominant winds,
- Hazards (such as floodways, salinity or bushfire).

PRODUCTIVE LANDSCAPE PRINCIPLE:

Sensitive uses (such as dwellings) should ensure maximum screening and / or separation from farm industries

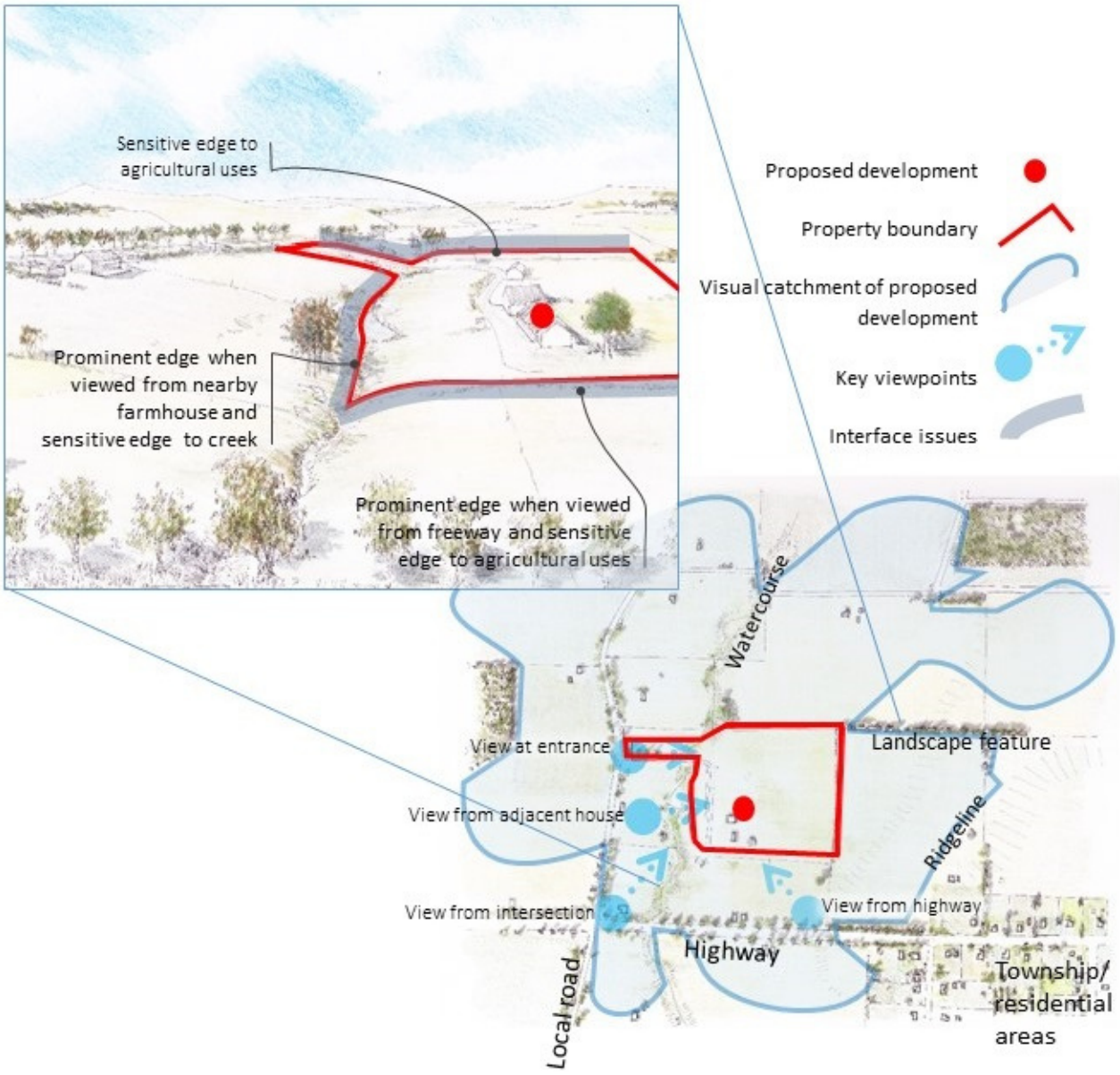

Figure 10: Example of sensitive edges and key view points

4. Siting your development

Buildings are often located to enjoy the view or for ease of access from a major road. Whilst these are important and valid considerations it can result in buildings being prominent in the landscape. Views from the road should be protected from high profile development to preserve the 'natural' appeal of the area.

Note: There is 'no right to a view' from your property across a landscape under the Farming or Rural Conservation zone, however it is still an important matter for consideration, in the spirit of 'being a good neighbour'.

BASIC DESIGN PRINCIPLES

- Site and design a building with the intention of 'blending' into the natural environment,
- Avoid buildings on the top of a hill or on the apparent skyline when viewed from a significant viewpoint,
- Protect native vegetation,
- Site development away from creeks to enable the planting and fencing of riparian zones,
- Avoid intrusion into culturally sensitive areas,
- Where natural buffers such as a ridge or dense vegetation exist, development should use these buffers to screen the development

from neighbouring farming activities or main roads,

- Locate to minimise exposure to hazards (bushfire and flooding),
- When multiple buildings are envisaged, balance the level of separation to ensure they do not present as over development, uncharacteristic of the rural setting.
- Avoid scattering built form across the site.

TABLE 1: Building siting considerations

Building siting options	Does it help new development be a good Neighbour?	Does it help Protect the Landscape?	Does it contribute to Sustainability?	Does it help Minimise vulnerability?	Comments
Building (s) located where they do not cross the skyline when viewed from key viewpoints	Will assist in diminishing intrusion on valued landscape	Least impact on landform		Ridgelines are typically more exposed than other locations so avoiding them may help ensure the buildings are less vulnerable to extreme weather.	The skyline is a particularly important component to views of the landscape. Built elements that protrude in to it will have a significant impact.
Buildings located away from environmentally or culturally sensitive areas	Minimise intrusion on valued landscape character and is more respectful of indigenous values	Minimises impact of development	Will help minimise impact on ecological values	Will reduce vulnerability to flooding and protect waterways	Watercourses are both environmentally and culturally sensitive
Buildings located to make use of landform and vegetation to provide screening	Will help screen buildings and retain the valued landscape,		Locating buildings near stands of large trees may result in their removal for bushfire safety	Will create a localised microclimate. This may either be beneficial (shade, wind amelioration) or detrimental (over-shadowing, creating a frost trap)	Using deciduous trees for screening may be less effective in winter than it will in summer. For bushfire safety it is best to have adequate separation to vegetation.
Buildings located to maximise distance to sensitive surrounding uses and main roads	Will usually make the building less prominent however sometimes landform may make alternate, closer sites more appropriate by virtue of being better screened.	May require a longer drive or accessway that may contribute to the impact of development	Likely to have a more significant impact on drainage and microclimate	Longer accessways may increase the potential for development to be cut off through land slippage, fire, flood	Buildings located a significant distance from access roads may help diminish impacts but other means such as using landform or existing screening landscaping may be more effective.
key	Generally contributory to achieving acceptable design outcomes in the hinterland	Variable impact on achieving the objectives of these guidelines – use with great care	Generally detrimental to achieving acceptable design outcomes in the hinterland and should not be used	Generally neutral impact on achieving good design outcomes in the hinterland	

SITING CONSIDERATIONS - WHAT TECHNIQUES WORKS WHERE

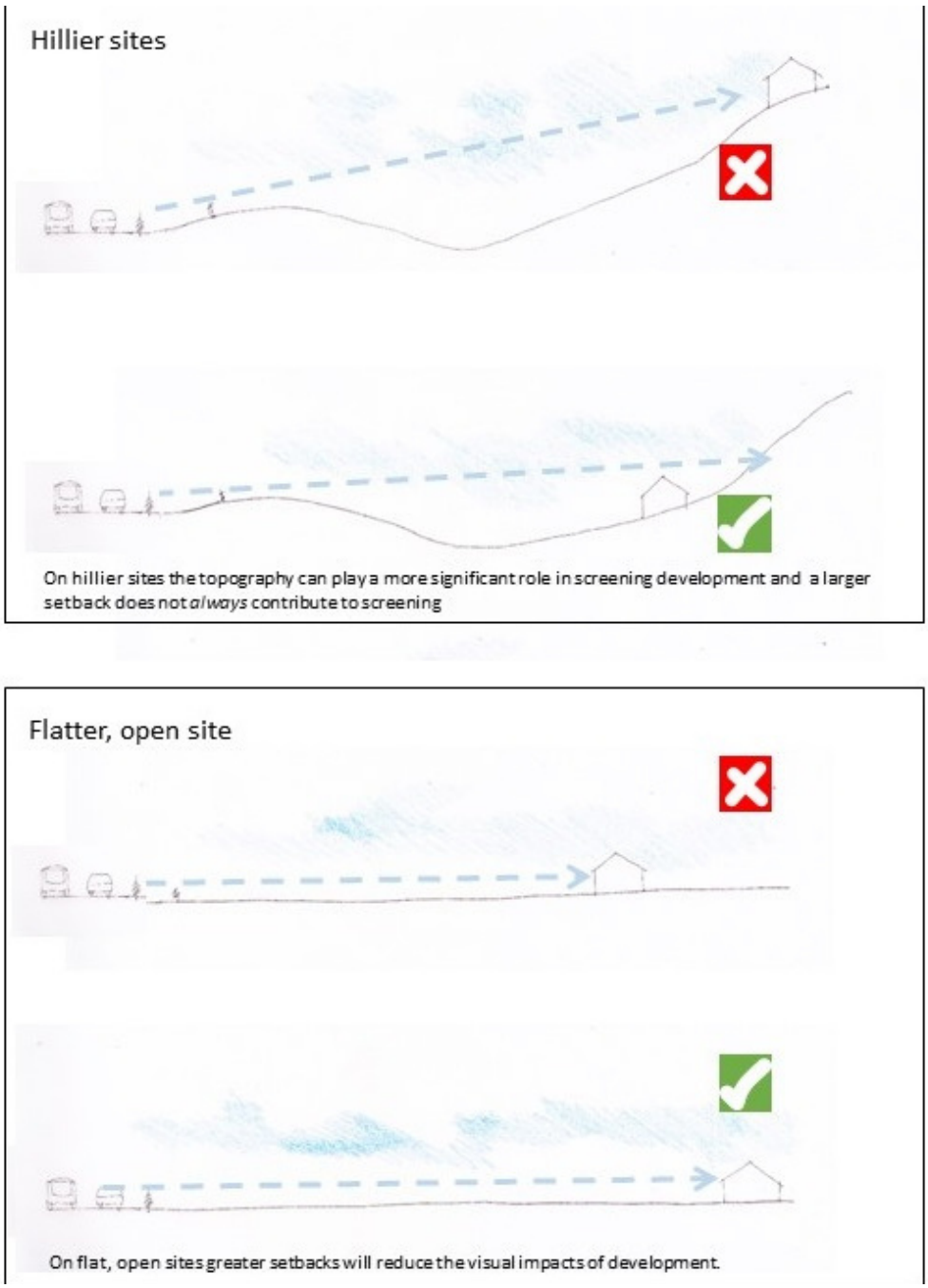

Figure 11: Siting considerations - when to use distance / screening / topography

Buildings should be sited to minimise their intrusion on the surroundings.

- On flat sites with few trees it is generally best to maximise distance between new development and existing sensitive uses.

- On sites with more varied topography the undulating landscape may provide opportunities for screening.
- Building on a skyline are to be avoided, particularly when visible from a significant viewpoint, such as a tourist route.
- Landscaping should be used to improve visual screening.
  Siting a development in a location that requires removal of vegetation (other than weed species) should always be avoided.

Figure 12: Siting considerations -screening and solar access

Deciduous trees including fruit trees are recommended for solar access. They enable winter sun to heat up a building but provide shading in hot summer months. Deciduous trees may not be suitable where visual screening is the main objective. In such cases they should be used in conjunction with indigenous vegetation.

Suitable indigneous species are available at WWW.SURFCOAST.VIC.GOV.AU/HOME

The optimum setting for a building requires consideration of many factors

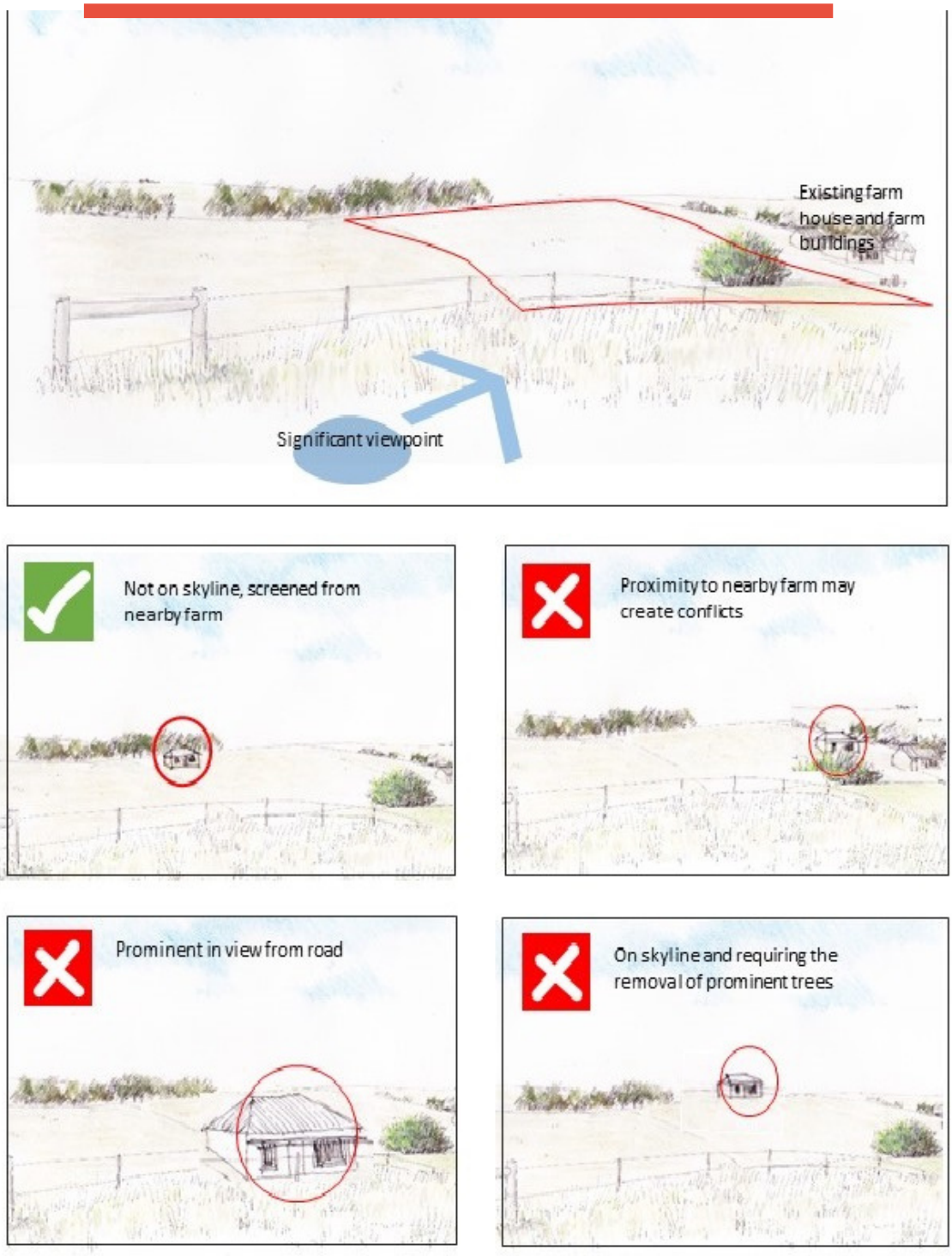

Figure 13: Siting considerations - avoiding amenity conflicts and landscape protection

Finding the best location on the site is about balancing constraints and opportunities

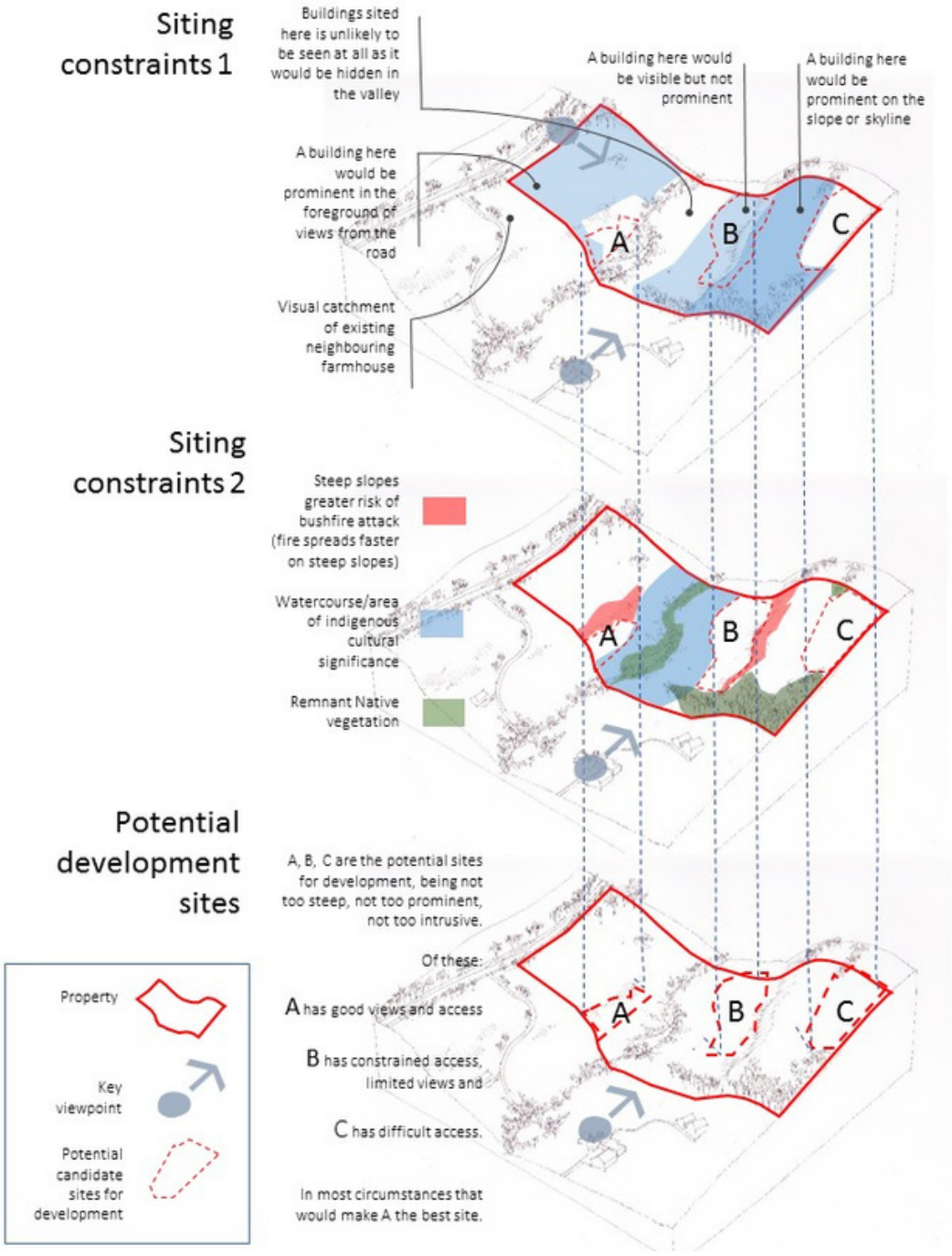

Figure 14: Siting considerations - how to effectively respond to siting constraints

5. Orientating your development

While we all need to use some energy in order to create a liveable and comfortable home, most Australian homes use far more energy than they need. Space heating and cooling is the major energy user within the average home. Significant savings can be made by designing homes to reduce space heating and cooling costs.

This can be achieved by designing your house to maximise solar access. Orientate living spaces and larger windows to the north, with shade provided to the north and west. When the view is to the south or west the northerly aspect should still be maximised. Large westerly facing windows need to be shaded to manage summer heat. Windows are a source of heat gain in summer and heat loss in winter. Although double or triple glazing is expensive, it is cost effective in the long term, reducing ongoing heating and cooling costs.

For more information on energy efficient design refer to:

'Surf Coast Shire's Sustainable Design book.'
www.surfcoast.vic.gov.au/home
and
Australia's guide to environmentally sustainable homes
www.yourhome.gov.au

ORIENTATION PRINCIPLE:
Orienate the building to maximise solar access. Living areas should be located on the north and sleeping and utility areas on the south

TABLE 2: Building orientation considerations

Building orientation	Does it help new development be a good neighbour?	Does it help Protect the Landscape?	Does it contribute to Sustainability?	Does it help Minimise vulnerability?	Comments
Habitable rooms orientated to north			Facilitates passive solar design. Allows comfort to be achieved with lower levels of resource consumption	Reduces dependence on mechanical heating and cooling and externally provided utilities	Generally preferable, may require careful internal design on sites with a short axis facing north
Roof plane orientated to north			Supports installation of solar panels Reduces dependence on mechanical heating and cooling	Reduces dependence on mechanical heating and cooling and externally provided utilities	
Large picture windows to the west	Can cause glare in the afternoon when the sun is low		These typically gain significant amounts of heat in the evening and increase reliance on mechanical heating and cooling		Generally to be avoided
key	Generally contributory to achieving acceptable design outcomes in the hinterland	Variable impact on achieving the objectives of these guidelines – use with great care	Generally detrimental to achieving acceptable design outcomes in the hinterland and should not be used	Generally neutral impact on achieving good design outcomes in the hinterland	

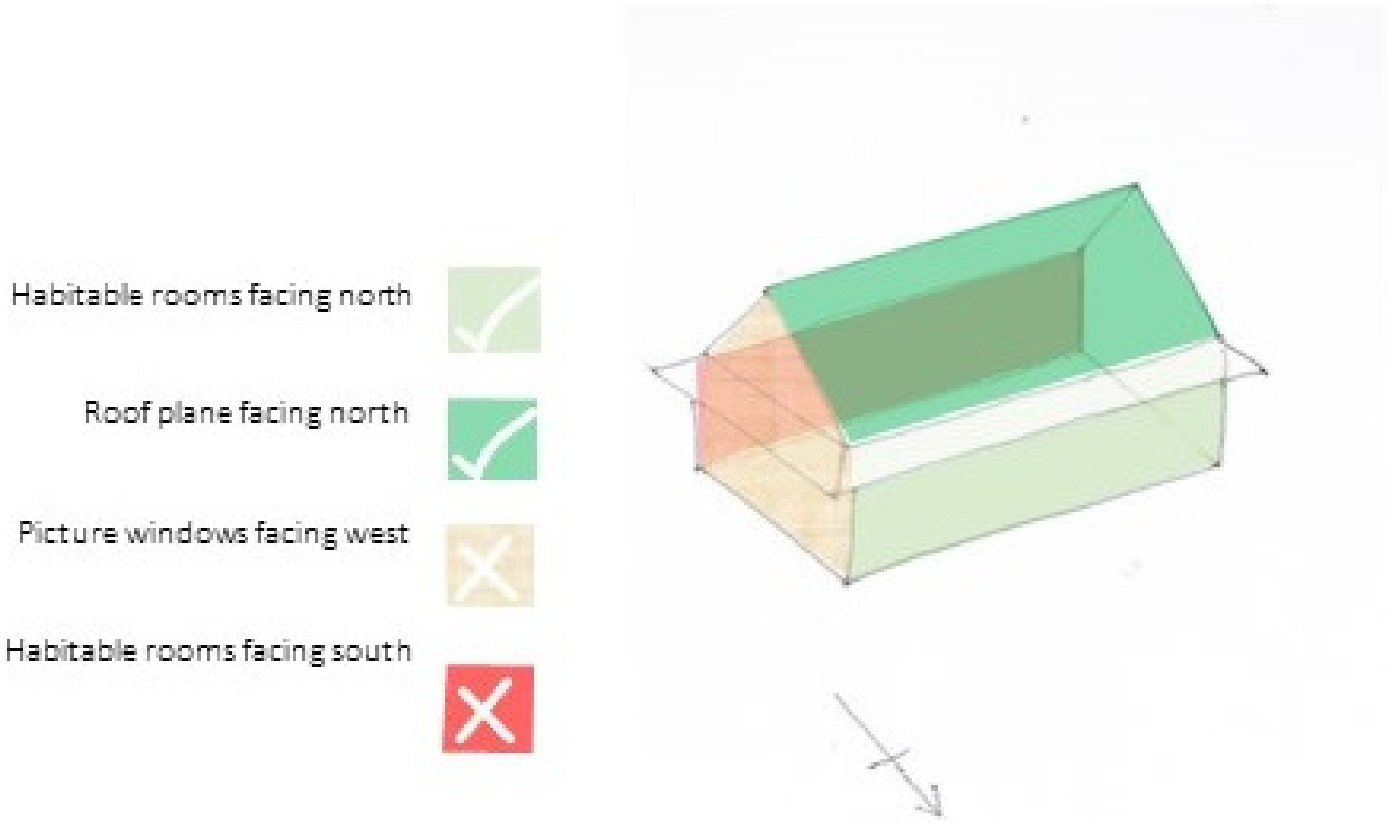

Figure 15: Orientation for solar access

6. Designing buildings to fit in

The Surf Coast hinterland has a look and feel that distinguishes it from other areas. This unique character and sense of place is a combination of different factors. These include landform, vegetation, architecture and settlement pattern.

Development that doesn't respond sensitively to these factors can erode the character and introduce a jarring element to the landscape and existing built form. This can happen when a building looks like it belongs somewhere else, either a different region or suburbia. Such discordant development may draw too much attention to itself, diminishing the rural setting.

BASIC DESIGN PRINCIPLES

- Retain existing buildings where practicable,
- Complement existing buildings when they are retained,
- Built form should respond to the landscape never the other way around (e.g. Avoid excessive cut or fill),
- Buildings should seek to be discrete and allow the landscape to be the dominant experience of place,
- Buildings should be sited and designed with the setting in mind, rather than relying on solving issues through landscaping or onerous management measures,
- Buildings should use natural and non reflective colours and materials that blend in with the rural setting.

TABLE 3: Building design considerations - responding to existing buildings

Response to existing buildings	Does it help new development be a good neighbour?	Does it help Protect the Landscape?	Does it contribute to Sustainability?	Does it help Minimise vulnerability?	Comments
Reference local architectural compositions and features in new buildings	Can help minimise intrusion on valued landscape character	Can help reduce impact of development and makes built form appear more settled in the landscape			Care should be taken to avoid pastiche of old buildings and respectfully distinguishing the old from the new development
Retain and reuse existing buildings where possible	Can assist in retaining the areas valued character		Has low embodied energy by maximising opportunities for recycling and reuse.		Generally preferable where possible although if these buildings are of no value or are detrimental to the areas broader character these may be removed
Removal of existing buildings	May increase the sense of upheaval on the site	Unless it removes an existing detrimental building the removal of an existing building will change the balance and composition of buildings in the landscape	The removal of the materials and remediation of the site will require careful consideration to minimise wastage or the investment of significant amounts of energy.		Where practicable any buildings that have to be removed should have materials and resources reused on site.
key	Generally contributory to achieving acceptable design outcomes in the hinterland	Variable impact on achieving the objectives of these guidelines – use with great care	Generally detrimental to achieving acceptable design outcomes in the hinterland and should not be used	Generally neutral impact on achieving good design outcomes in the hinterland	

Convert old farm buildings into cellar doors

TABLE 4: Building design considerations - responding to landform

Response to landform	Does it help new development be a good neighbour?	Does it help Protect the Landscape?	Does it contribute to Sustainability?	Does it help Minimise vulnerability?	Comments
long axis of building aligned along contours	This will usually have the least intrusion on the valued landscape	Least impact on landform	Generally does not require as significant engineering as cantilevered forms however may create challenges for solar access when the slope does not face north	Generally easier to ensure stability rather than larger engineered structures	Generally preferable where possible
Built form responsive to underlying slopes	Minimise intrusion on valued landscape character	Minimises impact of development and makes built form appear more settled in the landscape	Minimal impact on drainage. However, depending on orientation of slope may present challenges achieving good solar access (section 3.3)	Care needs to be taken to avoid impacts on drainage and maintaining vegetation cover	Changes the landform should be used sparingly and be well maintained
long axis of building aligned perpendicular to contours	Will usually make the building more prominent	Significant intrusion on valued landscape	Likely to have a more significant impact on drainage and microclimate	May create stability and landslip issues	Generally not preferred unless built form steps down with the landscape
key	Generally contributory to achieving acceptable design outcomes in the hinterland	Variable impact on achieving the objectives of these guidelines – use with great care	Generally detrimental to achieving acceptable design outcomes in the hinterland and should not be used	Generally neutral impact on achieving good design outcomes in the hinterland	

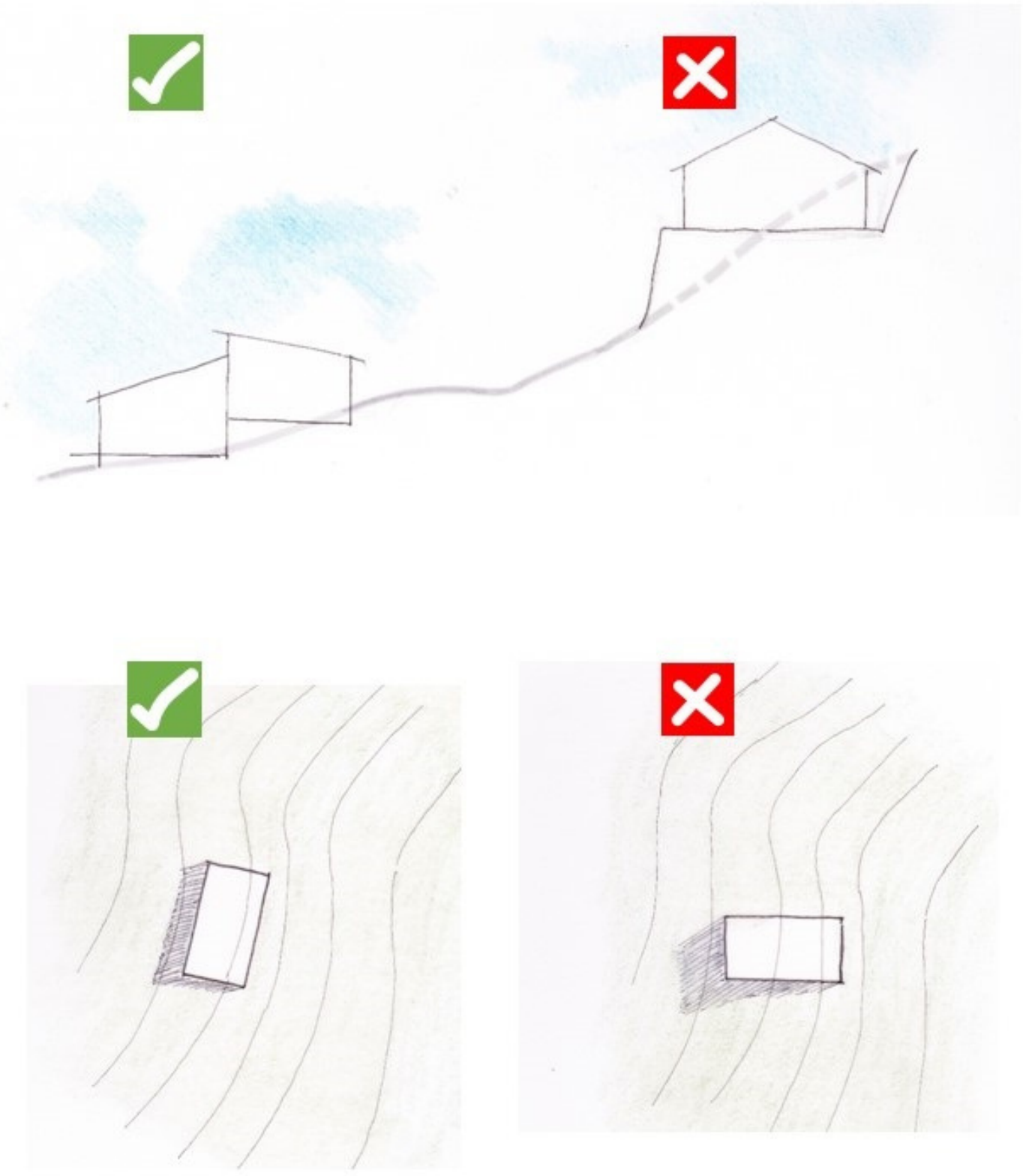

Figure 16: Responding to landform - working with the natural contours

TABLE 5: Building design considerations - multiple buildings

Building composition options	Does it help new development be a good neighbour?	Does it help Protect the Landscape?	Does it contribute to Sustainability?	Does it help Minimise vulnerability?	Comments
Cluster or clusters of buildings (including outbuildings)	Can help minimise impact on the balance of the site, subject to adequate screening. Can concentrate impacts where they can be best managed	Can enable landscape interventions to be concentrated to achieve the best effect at screening development	Minimises intrusion into landform and creates potential to diminish impact on areas drainage and habitat values	Concentrating development reducing interface issues that become harder to manage with more scattered development	Generally preferable where possible. However care needs to be taken to avoid the development appearing like an island of urban form.
Building infrastructure clustered with building (water tanks, solar panels, waste storage areas)	When designed in an integrated manner the infrastructure is less likely to be intrusive or detrimental to the areas valued character.	When designed in an integrated manner the infrastructure is less likely to be intrusive or detrimental to the areas landscape.	These can greatly assist in achieving sustainability objectives	Can reduce dependence on externally provided utilities. Screening of external gas bottles and orientation of taps away from buildings can help reduce risk of bushfire	Screening and careful use of recessive materials and colours that complement the main building can be effective in diminishing the impact of essential infrastructure on the character of the building
Scattered development	Locates development over a larger area. Tends to generate greater vehicle movements. May be appropriate for small tourist accommodation.	Typically requires a longer distance accessway and infrastructure such as power lines. More difficult to landscape to screen development when that that development is spread over a wider area	Will make it more difficult to efficiently provide centralised utilities such as hot water and waste management	Longer interfaces between bush and assets such as buildings can make them harder to defend against bushfires	Generally to be avoided where possible

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TABLE 6: Building design considerations - building form and mass

Building mass and form	Does it help new development be a good Neighbour?	Does it help Protect the Landscape?	Does it contribute to Sustainability?	Does it help Minimise vulnerability?	Comments
Buildings with a horizontal emphasis	Will help give buildings a low and offer a better fit with the rural character	Will help ensure landscape remains the dominant element	Condensed built form reduces cooling costs in summer and heating coasts in winter.		Generally preferable
Simple roof form	These tend to be recessive in the landscape and have low impact on the areas valued character		Solar panels can be attached straight onto pitched rooves without the need for framing.	These tend to be easier to maintain and when there are no internal valleys in the roof form this helps to slow down the build-up of fuel, reducing bush fire risk.	Generally preferable. Where practicable outbuildings should reflect the roof of the main building or buildings in pitch and form.
Buildings with a vertical emphasis	Will tend to increase the prominence of buildings which may erode the areas valued rural character and may increase the visual impact on surrounding properties	Will tend to give the building a high profile that will erode the prominence of the landscape			Not generally recommended
Complex and intricate rooves	These tend to increase the prominence of a building			Roofs incorporating valleys or other areas where fuel might gather increase the buildings risk of bushfire.	Not generally recommended

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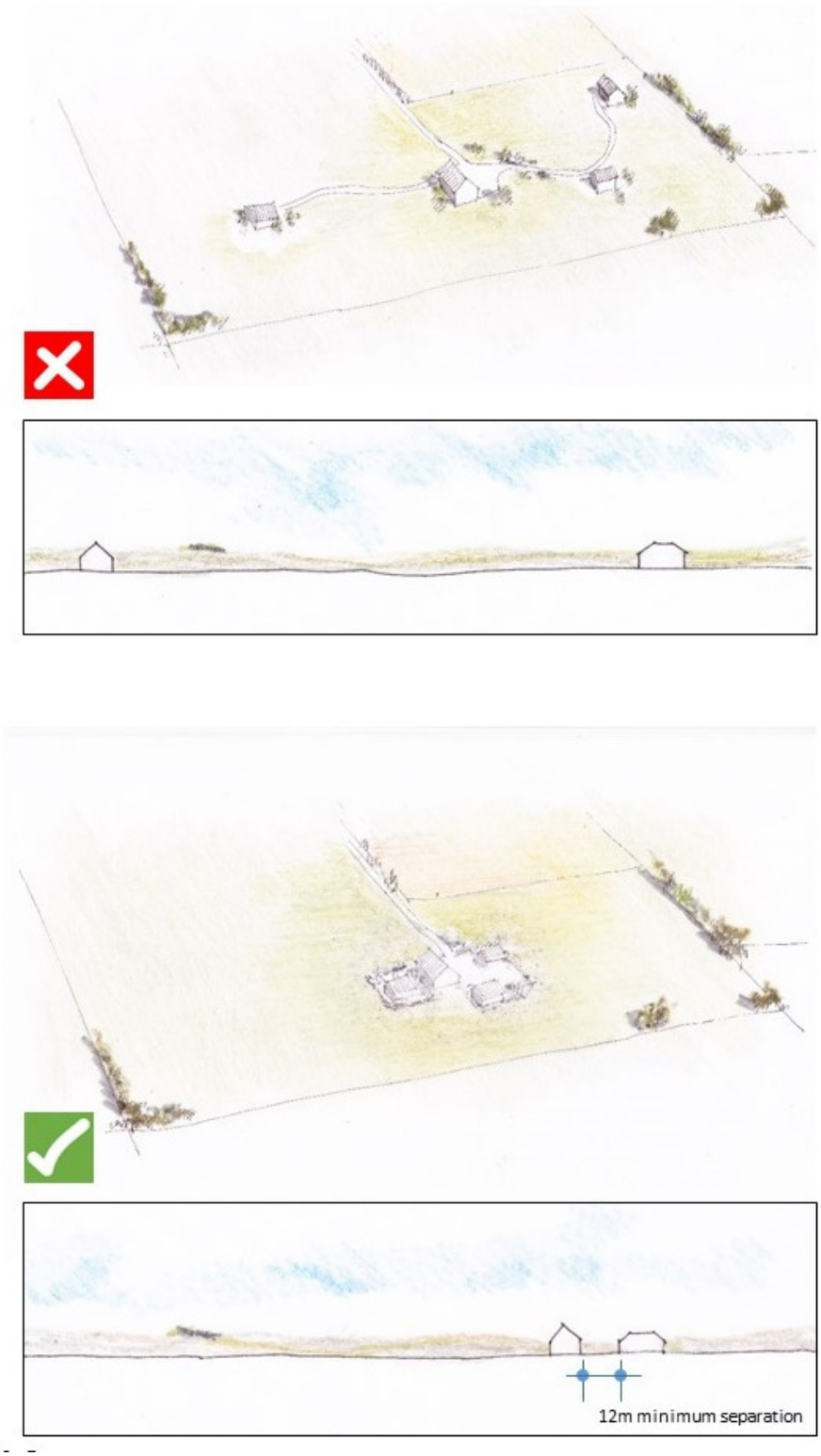


Figure 17: Minimising the impact of multiple buildings

Clustering buildings enables a development to make the best use of landscaping and minimise disruption. The optimum cluster is not too dense and not too spread out

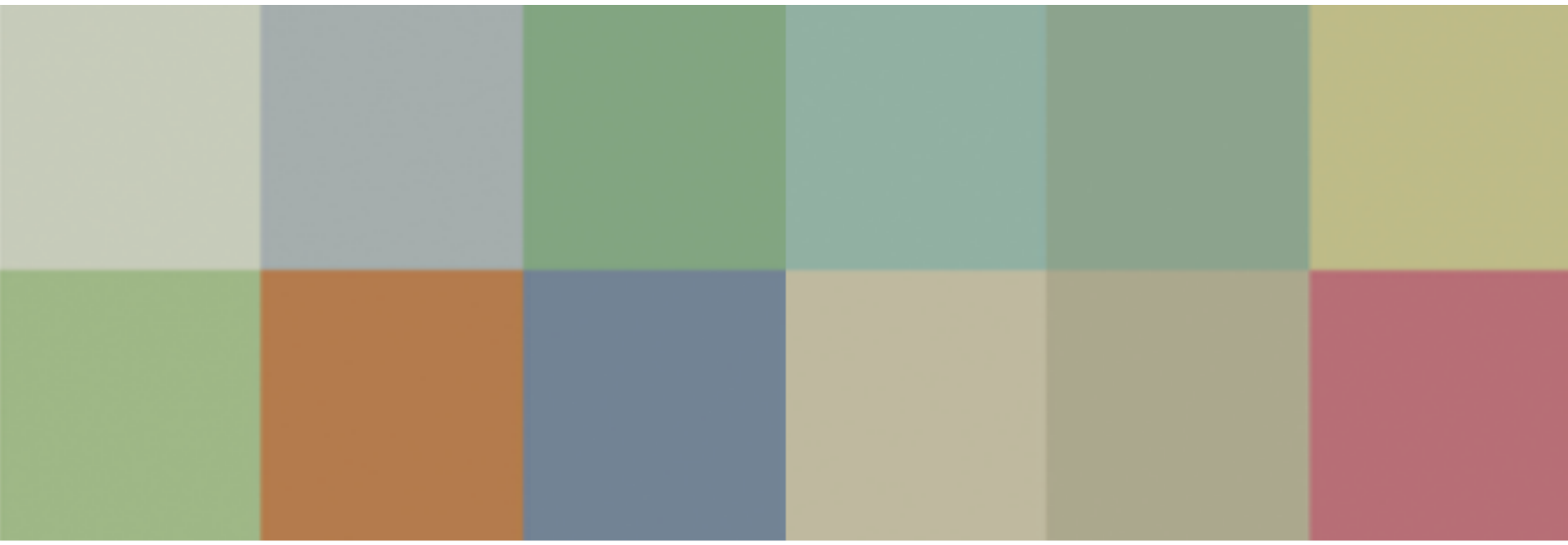
Figure 18: Building mass and form

Horizontal buildings can have a lower impact on the landscape and are easily screened

TABLE 7: Building design considerations - colours and materials

Colours and materials	Does it help new development be a good Neighbour?	Does it help Protect the Landscape?	Does it contribute to Sustainability?	Does it help Minimise vulnerability?	Comments
Muted colours as	Diminishes the visual impact of development	Decreases the prominence of the buildings	Dark colours attract the sun and can add to cooling cost.		Generally preferable,
Timber	Minimises intrusion of development on valued landscape character	Spotted gum and Silvertop Ash age to a soft grey that may assist a development to fit in	When locally and sustainably sourced	materials must comply with the construction requirements of Australian Standard 3959-2009 for the determined Bushfire Attack Level (BAL).	May be used effectively on features such as verandah posts to good effect
Stone	Will contribute to ensuring the development reflects the vernacular	Helps buildings to blend into the landscape	locally sourced stone preferable		Typically expensive, may be used sparingly for features to good effect
Corrugated iron	May contribute to ensuring the development reflects the vernacular	Will contribute to ensuring the development looks settled in the landscape	Can have poor insulation value		
Consistent use of materials and colours for all principal buildings	Will assist the development appear less intrusive	May assist in diminishing the visual impact of development			
Metal cladding	May create glare unless care is taken to select a muted finish		Can have considerable embodied energy and poor insulation value		
Brickwork	Not typically characteristic of the area		If used on the inside of the building (external walls have a light weight cladding such as timber), it significantly reduces heating and cooling costs		Not generally recommended
Bright colours, shiny materials	Will draw attention to the development, is highly reflective and creates glare within the landscape	Will intrude on the landscape			Not generally recommended

Consistent use of approprite materials and colours can help it blend with the local environment



Palette of subdued, recessive colours (source Surf Coast Sustainable Design book).

Figure 19: Colours

TABLE 8: Building design considerations - architectural features

Architectural Features	Does it help new development be a good neighbour?	Does it help Protect the Landscape?	Does it contribute to Sustainability?	Does it help Minimise vulnerability?	Comments
Verandahs	Will assist building to fit in better to rural character and help screen activity	Will help screen the built wall and can give the building more of a feeling of fitting into the landscape	Verandahs to the north can reduce dependence on mechanical heating and cooling		Generally preferable particularly to the north of a building
Deep eaves		Can diminish the impact of vertical walls in the landscape	Deep eaves to north can help control solar access and reduce dependence on mechanical heating and cooling		Generally preferable where verandahs are not employed
Steep roof (over 20 deg pitch)	A steeper roof pitch will generally help a building fit into its surroundings better where those surroundings are characterised by older buildings.	A steeper roof pitch can diminish the 'boxiness' of a building, however in a generally flat landscape with few trees it can give a building a higher profile	Steeper roof forms can facilitate better ventilation and support comfort in summer although they need careful design to ensure comfort in winter		Materials and colours (refer section x) can be used to diminish the impact of a steep roof pitch where the setting indicates one be employed but at a cost of increasing the visual profile of the building
Incorporated and prominent garages, porticos and rendered facades	These elements collectively have a suburban character which will diminish the valued rural character of their surroundings	There suburban character is likely to detract from their landscape setting			Generally to be avoided

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Figure 20: Architectural features

Verandahs and deep eaves on the north and west faces reduce unwanted heat gain and are consistent with the character

6. Landscaping your site

Landscaping is a key contributor to the aesthetic appeal of the Surf Coast Hinterland. Good landscape design, careful species selection, consideration of bushfire mitigation, landform, accessways, gateways and fencing. Good landscaping makes the most of the existing vegetation on the site, enhancing degraded land and extending wildlife corridors.

Balancing landscaping and bushfire mitigation can be complicated. The publication 'Landscaping your Surf Coast garden for bushfire' is available on our website and is a useful resources when designing your bushfire responsive garden.

BASIC LANDSCAPING PRINCIPLES

- Use locally sourced indigenous planting where possible (they are adapted to the local conditions, reflect the character and provide habitat.
- Minimise departures from the areas vegetated character.
- Maximise existing vegetation and the natural topography when designing your building. Site buildings well clear of existing native trees.
- Minimise impermeable surfaces in general but create a hard surface around buildings in bushfire prone areas.
- Manage noxious and environmental weeds on your property.
- In bushfire prone areas, maintain a 3m wide cleared area (with no vegetation) immediately surrounding buildings used for accommodation.

- Locate landscaping to minimise bushfire risks and consider non-flamable materials in construction, such as retaining walls and fencing.

TABLE 9: Landscaping - vegetation

Provenance of vegetation	Does it help new development be a good neighbour?	Does it help Protect the Landscape?	Does it contribute to Sustainability?	Does it help Minimise vulnerability?	Comments
Predominantly indigenous, local provenance	Least likely to escape and spread as weeds or carry diseases	Best suited for local conditions, generally hardy	Generally low water requirements when established High habitat value	Most likely to survive prolonged periods of drought	Generally the best choice, if suitable plant types exist
Predominantly indigenous, other	Not likely to escape but may cross pollinate locally indigenous vegetation on neighbouring land	Usually well suited for local conditions, generally hardy	Generally low water requirements when established Good habitat value		
Predominantly Native	Some natives can become weeds and spread into neighbours property	Often well suited for local conditions, generally hardy, with several exceptions			
Horticulture and fruit trees	Management of seed dispersal important to protect biosecurity if horticulture undertaken nearby	Autumn colours provides connection to the seasons	Supports local food production. Provides shade in summer and access to sunlight in winter to habitable spaces	Higher water requirements and can be located closer to a dwelling for shade	Generally a very good choice
Predominantly Exotic provenance	A significant number of exotic species can become amenity weeds	Likely to be incompatible with form, colour of native vegetation. Heritage trees such as oaks are suitable as avenues into Moriac, Deans Marsh and Winchelsea.	Depending on provenance can be water and resource hungry, can become environmental weeds	Can be vulnerable to prolonged drought but can assist in protecting against bushfire (if significant moisture content can be maintained)	Generally not appropriate except where compelling reason to use exotics exist (such as bushfire protection) Check with Council to ensure you are not introducing any environmental or amenity weeds
Declared weeds (refer Weeds of the Surf Coast Shire)	It is your responsibility to manage declared weeds on your property	Likely to adversely change landscape character	Can deplete soils and harbour pest animals	Can contribute to erosion	

TABLE 10: Landscaping - energy efficiency and bushfire mitigation

Gardens surroundings buildings	Does it help new development be a good Neighbour?	Does it help Protect the Landscape?	Does it contribute to Sustainability?	Does it help Minimise vulnerability?	Comments
Deciduous trees to N/west of buildings	Management of leaf litter spread by wind will be required		Will let winter sun in but screen hot summer sun	Will help reduce dependency on mechanical heating and cooling	See CFA advice "Landscaping for bushfires" and "Landscaping your Surf Coast garden for bushfire" for further advice
Existing mature and healthy trees retained	Will help screen buildings	Will help provide the new building with a settled, established character Protects skyline	Habitat value, particularly old trees containing hollows	Can provide shade and help mitigate micro-climatic extremes however will need adequate separation from buildings to manage bushfire risks	See CFA advice "Landscaping for bushfires" and "Landscaping your Surf Coast garden for bushfire" for further advice. Note buildings should be located a distance of 1.5x the mature height of the tree
Irrigated trees, vines and groundcover between building and rural unmanaged landscapes	Will help screen building	Will help screen building	Species selection to consider maintenance and irrigation requirements	Healthy trees and vines with high moisture content can help reduce bushfire risk if adequately separated from buildings	Reliable consistent irrigation will be essential to provide a degree of long term protection against bushfire attack through planting
Hard paved and fire resistant areas around buildings	Will reduce chances of building being a vector for the spread of bushfire			Will help reduce bushfire risk	Refer to "Landscaping your Surf Coast garden for bushfire" for advice.
Water bodies near buildings	Will reduce chances of building being a vector for the spread of bushfire		If building is designed for cross ventilation, can assist with cooling buildings in summer	Will help reduce bushfire risk Can assist in providing water storage in times of drought	

key				
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Figure 21: Landscaping for energy efficiency and bushfire mitigation

Careful landscape design can improve the comfort of a building and reduce bushfire risk

TABLE 11: Landscape - access design

Accessways and entries	Does it help new development be a good Neighbour?	Does it help Protect the Landscape?	Does it contribute to Sustainability?	Does it help Minimise vulnerability?	Comments
On steep sites (10%+) access ways aligned to avoid crossing contours at right angles	Least likely to scar the landscape with retaining walls and cut and fill	Least impact on landscape character	Will have least impact on drainage	Least vulnerable to land slippage and erosion	Generally lower impact on hilly land
On flatter land (less than 10%) accessways aligned along property boundaries	Characteristic of area	Characteristic of area, minimal distance and intrusion	Typically straighter access ways minimise paved length and area		Generally lower impact on flat sites
Farm Gates at entry		Fits into to local character		Designed for rural conditions	
Minimise width and area of hard paved / impermeable surface	Will reduce detrimental impacts on drainage	Typically less visually intrusive	Less impact on the sites drainage/hydrology	May increase run off and generally to be avoided except adjacent to buildings where may help reduce risk of bushfire attack	
Align access ways adjacent to vegetated edges where possible	Can reduce visibility and help diminish light pollution from "headlight sweep" at night	Can help screen access way	Can create conflict between wildlife and vehicles	Can create a longer interface between human activity and areas of vegetation, increasing vulnerability to bushfire	
Suburban style gates	May contribute to the 'suburbanisation' of the rural environment	Typically clashes with rural character		Typically not built for rural conditions	Gates have a high profile from roads and subsequently a significant impact

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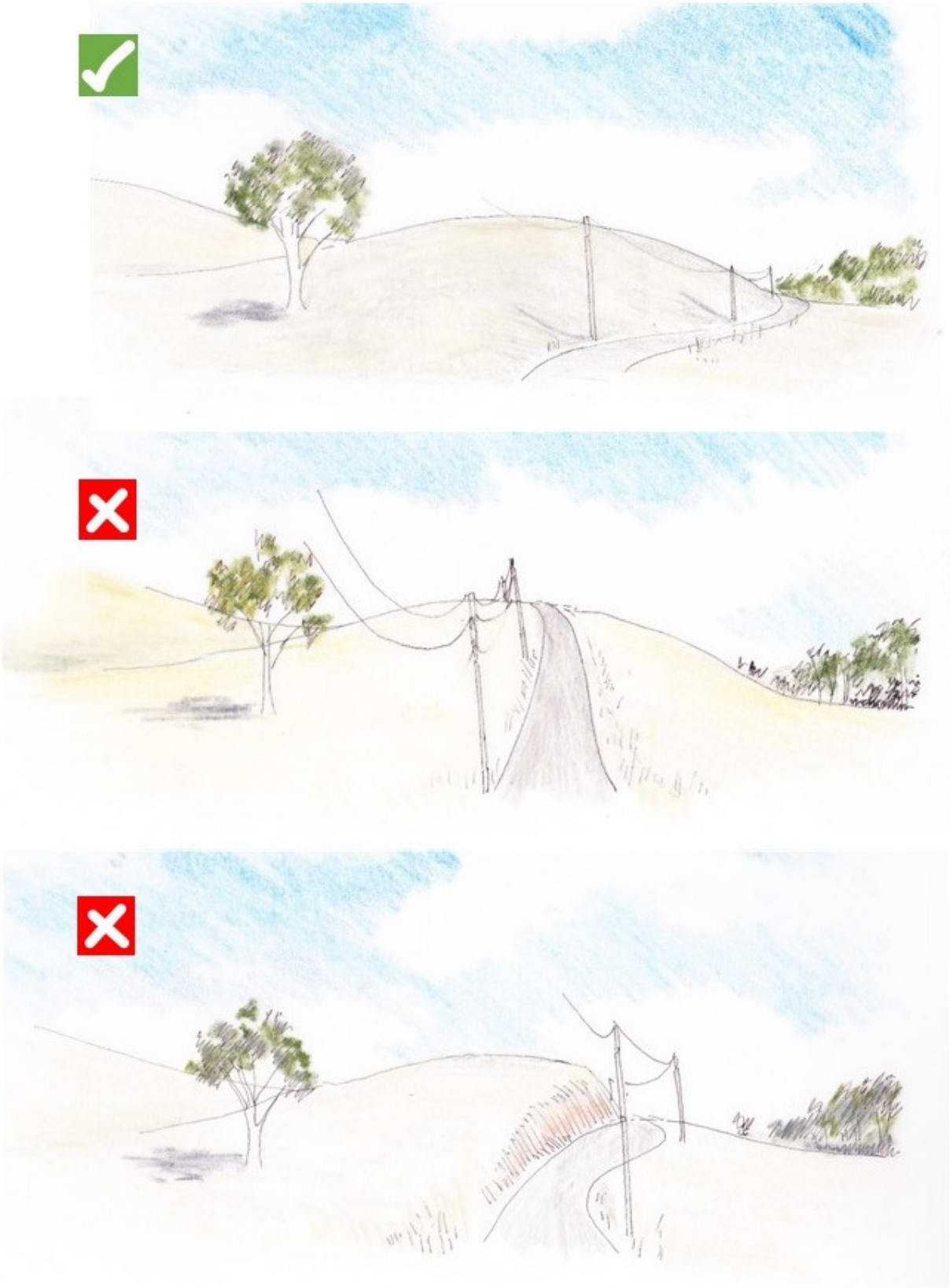

Figure 22: Access design on undulating land

The access should work with the contour of the land

Figure 23: Access design on flat land

Accsss should should be located parallel to property boundaries

TABLE 12: Landscape - boundaries

Boundaries	Does it help new development be a good Neighbour?	Does it help Protect the Landscape?	Does it contribute to Sustainability?	Does it help minimise vulnerability?	Comments
Wire and post fencing	These are characteristic of the area	Least impact on landscape character	Will have least impact on drainage and enables movement of native fauna	Can limit incursion from escaped stock	Generally preferable
Vegetated boundaries	Characteristic of area, can help screen buildings	Characteristic of area and provides shade for stock	Can contribute to habitat values with appropriate species selection	Can provide beneficial microclimatic effects	Compatible with wire and post boundaries
Stone walls	Can help screen buildings	Characteristic of area when locally sourced Can provide habitat	Utilise local resource		Typically expensive and best restricted to high profile locations
Mounded boundaries	Can provide effective buffer to minimise noise of activities	Can help screen buildings	May be disruptive to drainage and might divert stormwater flows	Will need particular care to maintain vegetation	
Solid metal fences	Often intrusive	Typically uncharacteristic	High embodied energy, can be disruptive to drainage	High wind loads may increase risk of damage	Generally inappropriate

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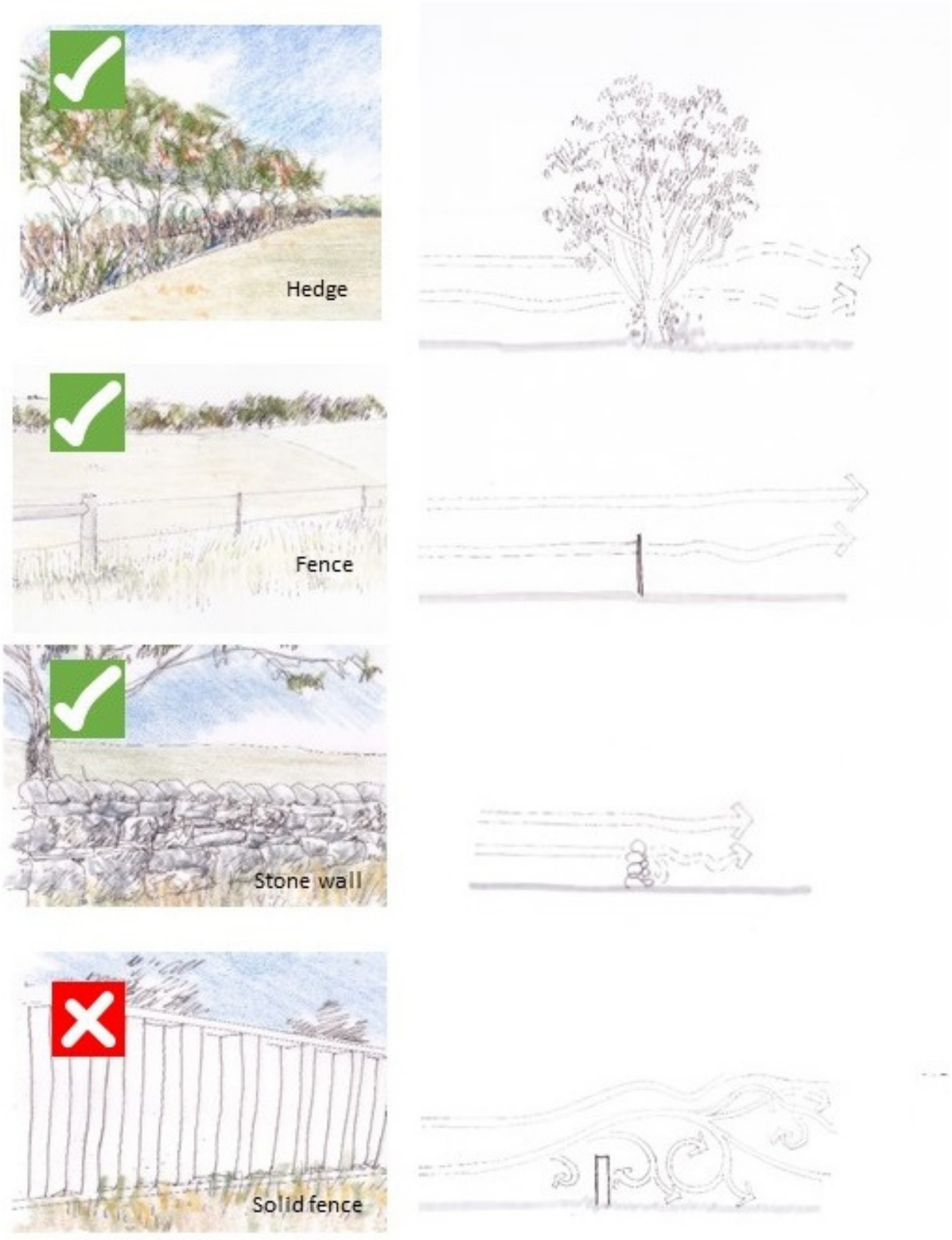

Figure 24: Treatment of boundaries

Materials used on boundaries are important to the character and affect the micro climate

TABLE 13: Landscape - responding to landform

Landform	Does it help new development be a good Neighbour?	Does it help Protect the Landscape?	Does it contribute to Sustainability?	Does it help Minimise vulnerability?	Comments
Minimal variation to non-degraded landforms	Minimal disruption to characteristic and valued landscapes	Least impact on landscape character	minimal impact on drainage	Generally stable with appropriate vegetation	Generally preferable, assuming site is not degraded, in which case land form modification may be required to return it to a healthier condition
Limited use of mounding	Can provide a buffer for noise	can help screen buildings when appropriately planted	Can impact drainage	Care needs to be taken to avoid flooding and maintaining vegetation cover	Can be useful when used sparingly and well maintained
Retaining walls	can impact drainage	Visually intrusive			Without careful design these may present a good and a bad viewpoint. If retaining walls are required should be designed and landscaped so view from surroundings considered

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Part 4

1. WHAT TO SUBMIT

Prospective applicants for development are strongly advised to discuss their proposals with a Council Planning officer before they commit to finalising their design. This will help ensure new development is:

- A good neighbour,
- Fits in with its surroundings,
- Is sustainable, and
- Resilient to natural hazards.

To assist Council officers consider a proposal in a timely manner applications for development in the hinterland should be accompanied by:

- A site and context analysis as described in **Part 3 - responsive design**.
- A cartographic representation of the visual catchment of the development.
- A statement outlining:
    - How the development responds to adjoining properties and impacts on key viewpoints (if any).
    - what sustainable design features have been included.
    - how the design has addressed the detrimental impacts of any characteristics included in red or amber statements.

2. Development template

To help determine if your proposal meets the siting and design requirements of the Farming Zone (FZ) and the Rural Conservation Zone (RCZ).

DESIGN CONSIDERATION	RESPONSE
SENSITIVE USES What are the sensitivities of the adjoining properties? What are the sensitivities of the proposal in relation to surrounding uses? How does your proposal minimise the impact of these sensitivities?	
VIEWPOINTS What are the key viewpoints of the proposal from its surroundings? What impact will the development have on those viewpoints?	

DESIGN CONSIDERATION	RESPONSE
Has the proposal been sited to minimise impacts on viewpoints and sensitive edges?	
BUILT FORM Does the built form incorporate the design responses outlined in these guidelines?	
LANDSCAPING Does the landscaping incorporate the design responses outlined in these guidelines?	
LANDSCAPE PROTECTION Great design complements the local setting.	

Where a development deviates from the design responses outlined in these guidelines, a written statement is required outlining how the overarching principles have been met