Department of Planning and Environment

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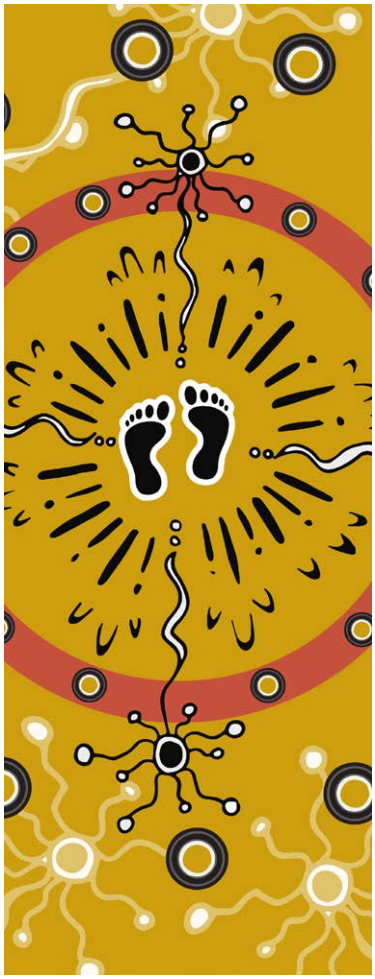
NSW Coastal Design Guidelines 2023

For a thriving and resilient coast

October 2023

NSW GOVERNMENT



Acknowledgement of Country

The Department of Planning and Environment acknowledges the Traditional Custodians of the land and pays respect to Elders past, present and future.

The NSW coast has a diverse array of ecosystems and communities. From time immemorial, it has been home to the many nations and clans who are the Traditional Custodians of the lands along the coast and throughout Australia.

A shared connection to and a great love for the NSW coast unify its Aboriginal people. From Nadgee Nature Reserve in the lands of the southern Bidawal people to Duranbah Beach in Bundjalung Nation in northern NSW, Aboriginal people maintain a continuing cultural connection to land and sea Country.

Telling the story of Country is a process of seeking common ground.

We all have a responsibility to safeguard the places, living history and culture of the NSW coast. We benefit greatly from learning from the Traditional Custodians of this Country, whose deep understanding of, and connection to, Country forms the foundations of good decision-making. The coast's natural features, historic sites, community organisations and management councils serve as a living resource for understanding and caring for the coast.

If we care for Country, Country cares for us.

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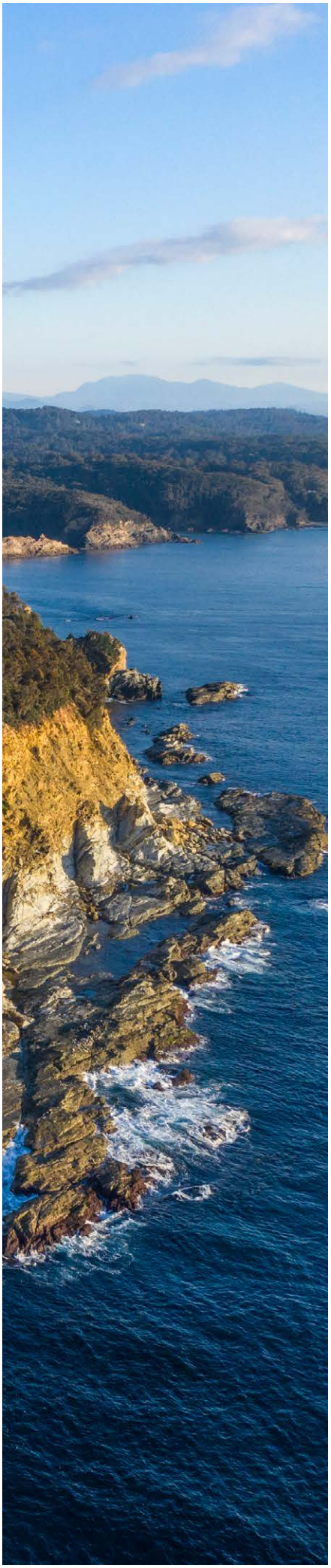
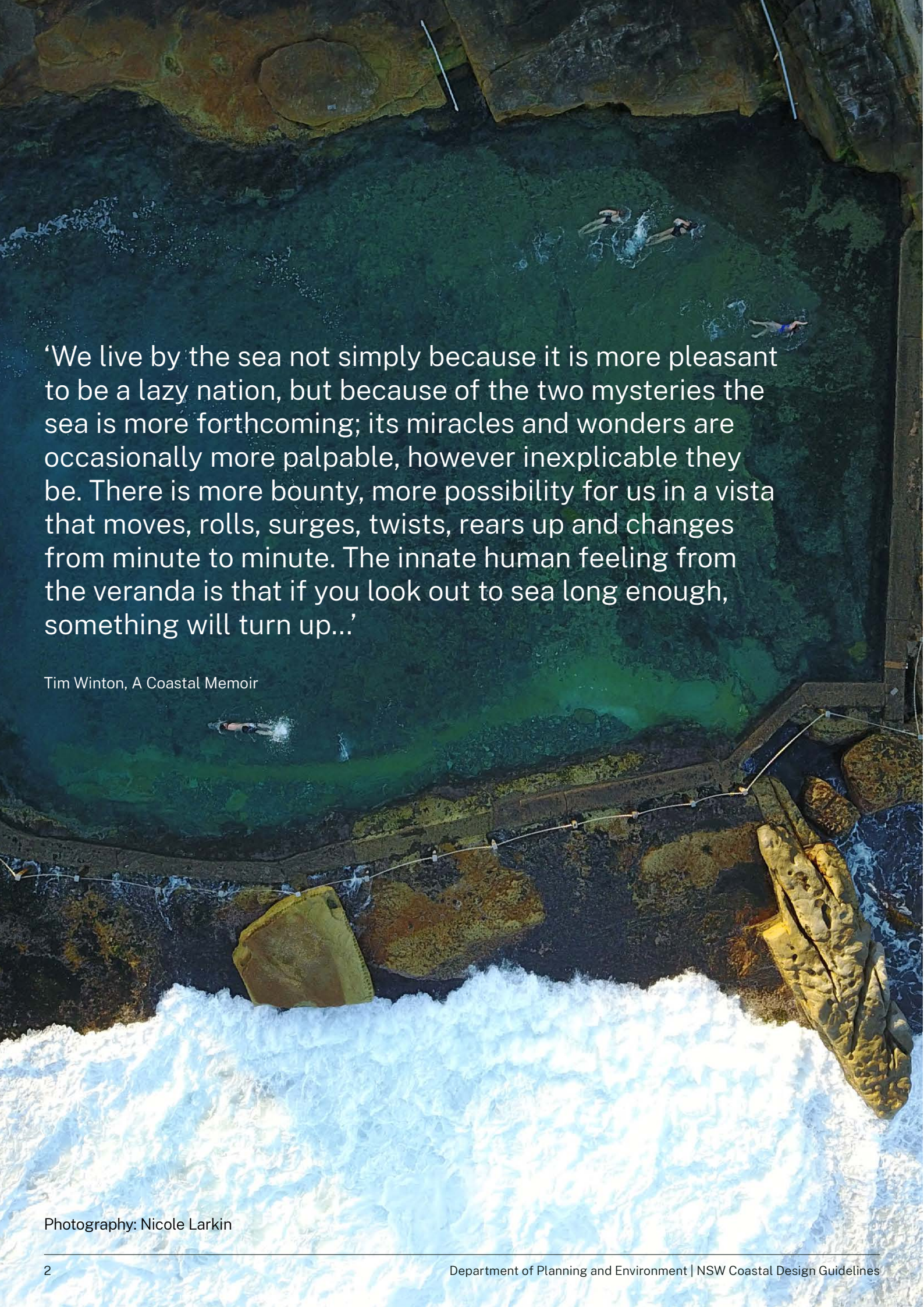


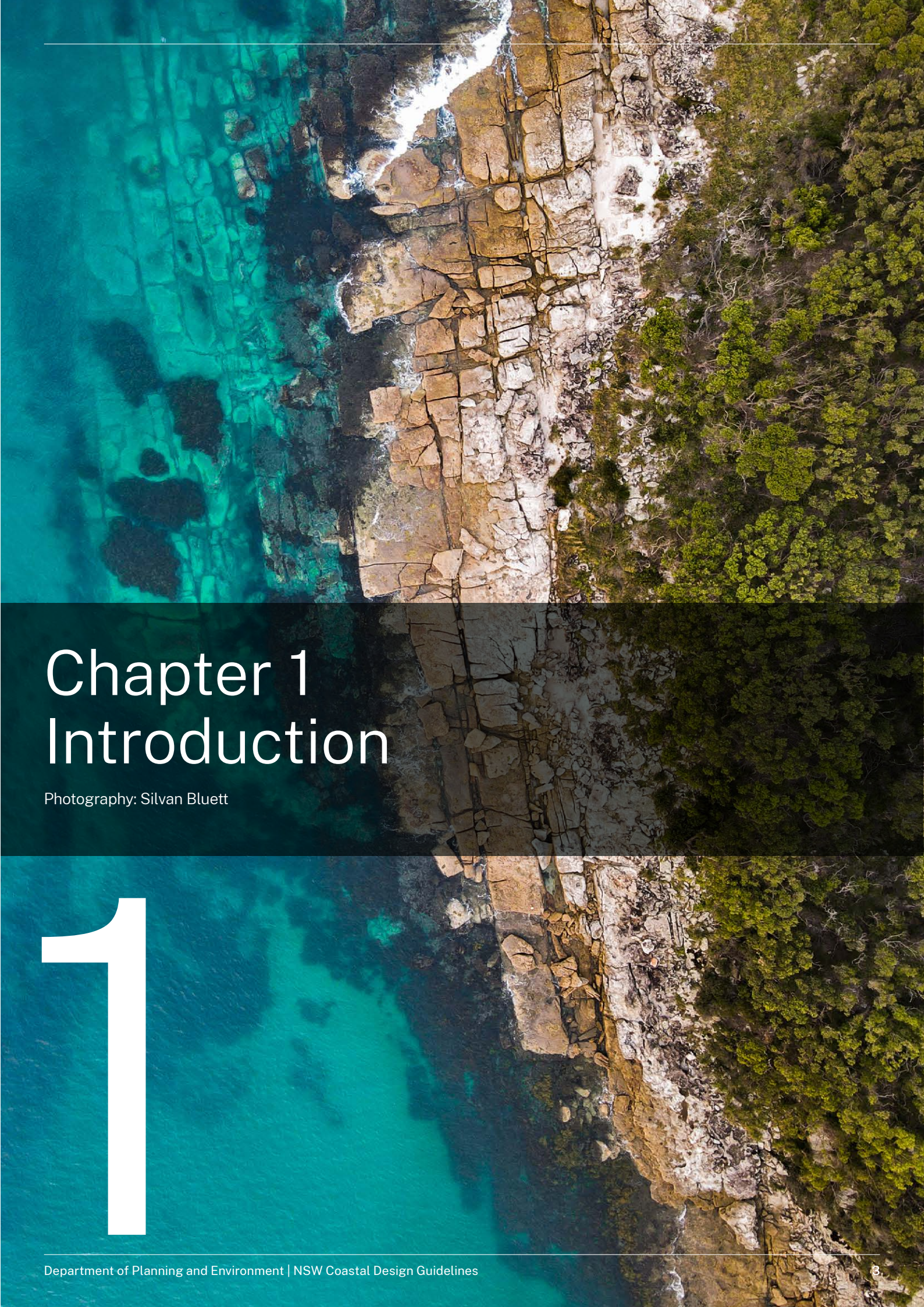
Cover image and right:
Burrewarra Point – Eurobodalla LGA / Yuin Country
(Photography: Destination NSW)



‘We live by the sea not simply because it is more pleasant to be a lazy nation, but because of the two mysteries the sea is more forthcoming; its miracles and wonders are occasionally more palpable, however inexplicable they be. There is more bounty, more possibility for us in a vista that moves, rolls, surges, twists, rears up and changes from minute to minute. The innate human feeling from the veranda is that if you look out to sea long enough, something will turn up…’

Tim Winton, A Coastal Memoir

Photography: Nicole Larkin



Chapter 1 Introduction

Photography: Silvan Bluett

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1.1 When to use these guidelines

Mandatory application – planning proposals

Under Local Planning Direction 4.2 (Coastal Management), planning proposals that seek to amend a local environmental plan in the coastal zone must be consistent with the NSW Coastal Design Guidelines. This is the case unless an inconsistency can be justified in line with the requirements of the local planning direction. All planning proposals in the coastal zone must, therefore, address the Coastal Design Guidelines.

Local councils, landowners and developers, or their representatives, must use the Coastal Design Guidelines when seeking to change planning controls in the coastal zone through a planning proposal. Plan-making authorities must also use the guidelines to assess these planning proposals.

A planning proposal in the coastal zone must be consistent with the requirements and recommendations set out in section 3.2 of these guidelines, including the use of the assessment checklist at **Appendix 1.**

Recommended additional application – urban design

The Coastal Design Guidelines also advise on best-practice urban design for development in the coastal zone. Designers, architects, and landscapers can use the guidelines to better understand coastal places and create suitable designs for coastal areas. Drawing on this guidance to shape urban design projects will ensure future designs can accommodate growth along the coast while preserving coastal environments.

The urban design guidance outlined in this document can apply across all project scales, including:

- regional plans
- local strategic planning statements
- master plans and precinct plans
- business cases
- preliminary development feasibility studies
- development applications, including coastal subdivisions.

The coastal zone

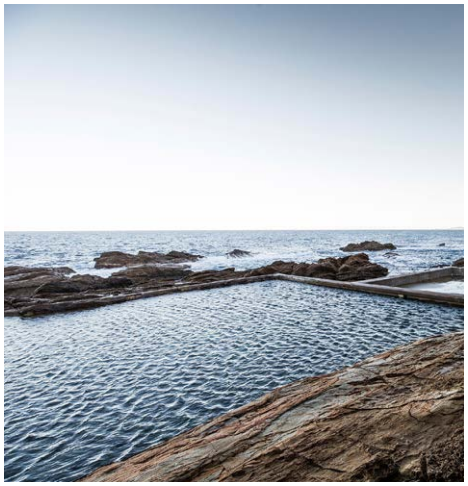
The coastal zone is defined by the *Coastal Management Act 2016* (Coastal Management Act). It defines the coastal zone as 4 (sometimes overlapping) coastal management areas:

- **Coastal wetlands and littoral rainforests area** – areas which display the characteristics of coastal wetlands or littoral rainforests
- **Coastal vulnerability area** – areas subject to coastal hazards such as coastal erosion and tidal inundation
- **Coastal environment area** – areas with natural coastal features such as beaches, rock platforms, coastal lakes and lagoons and undeveloped headlands. This includes marine and estuarine waters
- **Coastal use area** – land adjacent to coastal waters, estuaries and coastal lakes and lagoons, and where urban coastal development may be found.

You can find the maps of the coastal management areas on the ePlanning Spatial Viewer.

Note: References to 'coastal hazard and risk areas' within this document means any mapped coastal vulnerability areas and/or areas affected by (or projected to be affected by) coastal hazards that have been identified in a state environmental planning policy, local environmental plan, development control plan, coastal management program, coastal hazard policy or study adopted by council.

View from Muttonbird Island Nature Reserve – City of Coffs Harbour LGA / Gumbaynggirr Country



Blue Pool, Bermagui
–Bega Valley LGA / Yuin-Monaro Country (Photography: Nicole Larkin)

Bondi Beach at sunrise
–Waverley LGA / Gadigal Country

1.2 How to use these guidelines

These guidelines aim to improve decision-making, built outcomes and environmental performance in coastal places through strategic planning and urban design. The guidelines give best-practice advice to support the preparation of planning proposals, place strategies and local planning controls. They also aim to shape good urban design outcomes within coastal settlements.

We recommend that councils, agencies, developers and other stakeholders engage professionals trained in urban design, architecture and landscape architecture. This would allow full use of the guidelines to inform decision-making along the coast.

These guidelines should be read together with other guidance relevant to the scale of the proposed development.

The guidelines are divided into the following sections:

- **Chapter 2 Understanding coastal places** – outlines the recommended approach to understanding places in the coastal zone, and explores the common factors, features, pressures and opportunities for coastal places informing the site analysis process that should happen in the early stages of any project.
- **Chapter 3 Planning proposals in the coastal zone** – establishes the requirements for planning proposals in the coastal zone, including objectives and outcomes. To be consistent with Local Planning Direction 4.2 (Coastal Management), planning proposals in the coastal zone must apply these requirements.
- **Chapter 4 Urban design guidance for the coastal zone** – outlines best-practice urban design for coastal places. This chapter goes beyond the level of detail required in planning proposals, which do not address urban design considerations such as built form, siting, orientation, materials, landscaping and detailed environmental factors such as water quality and ecological impacts. While this chapter is not mandatory for strategic planning or development assessment, we strongly encourage using it for local and regional strategic planning as well as projects such as place strategies, master plans and development applications in the coastal zone. This will ensure the design is sensitive to natural coastal environments.

Figures and illustrations throughout this document are conceptual examples of how the guideline requirements may be addressed.

At the end of the document there is a glossary and list of further resources to help apply the requirements.

The NSW Department of Planning and Environment will review the Coastal Design Guidelines every 10 years to ensure they remain current and reflect the needs and expectations of coastal communities.

Fishing in Tuross River, Tuross Head – Eurobodalla LGA / Yuin Country (Photography: Destination NSW)

1.3 Strategic context

This document is part of the NSW coastal management framework, which regulates and supports appropriate social, economic, cultural and environmental outcomes within the coastal zone. It also promotes the objectives of the *Marine Estate Management Act 2014* and NSW Government design policies including 'Better Placed'.

Table 1. Strategic context of the NSW Coastal Design Guidelines – NSW coastal management framework

Document or legislation	Relationship to Coastal Design Guidelines
Coastal Management Act 2016	The guidelines support the objects of the Coastal Management Act and the management objectives for the coastal management areas by providing design requirements for development in the coastal zone.
Resilience and Hazards SEPP 2021	The guidelines provide design requirements for development in each of the 4 coastal management areas identified by the state environmental planning policy (SEPP). Some of the requirements in section 3.2 are based on the planning controls of the SEPP and have been adapted to be appropriate for a planning proposal.
Coastal management programs (CMPs)	The guidelines should be used as a resource to inform the development of CMPs. Under Local Planning Direction 4.2 (Coastal Management), planning proposals must be consistent with both CMPs and the guidelines, so inconsistencies between these documents should be avoided wherever possible.
Coastal management manual and toolkit	These resources complement the guidelines by giving more technical guidance and resources on particular coastal issues, such as coastal hazards.

Table 2. Strategic context of the NSW Coastal Design Guidelines – marine estate management framework

Document or legislation	Relationship to Coastal Design Guidelines
Marine Estate Management Act 2014	The guidelines support the objects of the Marine Estate Management Act by providing design requirements for the protection and management of the NSW marine estate. Some of the requirements in section 3.2 of this guideline are based on the Marine Estate Management Act and have been adapted to be appropriate to a planning proposal.
Marine Estate Management Strategy	The update to the guidelines was a project under Initiative 2 of the strategy, which focuses on delivering healthy coastal habitats with sustainable use and development.

Table 3. Strategic context of the NSW Coastal Design Guidelines – strategic planning framework

Document or legislation	Relationship to Coastal Design Guidelines
Regional plans	The guidelines should inform the development of regional plans. Planning proposals should be consistent with regional plans under section 3.8 of the *Environmental Planning and Assessment Act 1979* and must also be consistent with these guidelines under Local Planning Direction 4.2 (Coastal Management). Therefore, inconsistencies between these documents should be avoided wherever possible.
Local strategic planning statements	The guidelines should be used as a resource to inform the development of local strategic planning statements. Under Local Planning Directions 9.2 (Rural Lands) and 4.2 (Coastal Management), planning proposals on rural or conservation lands within the coastal zone must be consistent with both local strategic planning statements and the guidelines. Therefore, inconsistencies between these documents should be avoided wherever possible.
Local planning directions	Under Local Planning Direction 4.2 (Coastal Management), planning proposals within the coastal zone must include provisions that are consistent with the guidelines and put them into action. All planning proposals for a new or an amending environmental planning instrument must demonstrate consistency with all relevant local planning directions or justify any inconsistency. Any inconsistency must be justified in line with the requirements of the local planning direction.

Table 4. Strategic context of the NSW Coastal Design Guidelines – design guidance

Document or legislation	Relationship to Coastal Design Guidelines
Design guidance	Complements the guidelines and gives more information on particular topics, such as green infrastructure, urban design and designing with Country. Design guidance can be used to support applying the guidelines.

Seagulls at the beach, Diamond Beach – MidCoast LGA / Biripi Country

People walking along Stockton Beach – Port Stephens LGA / Worimi Country (Photography: Destination NSW)

NSW coastal management framework

Coastal Management Act 2016 (NSW)

The object of the Coastal Management Act is to manage the coastal environment of NSW consistently with the principles of ecologically sustainable development for the social, cultural and economic wellbeing of the people of NSW. Among other things, the Coastal Management Act aims to:

- protect and enhance natural coastal processes and coastal environmental values including natural character, scenic value, biological diversity and ecosystem integrity and resilience
- support the social and cultural values of the coastal zone and maintain public access, amenity, use and safety
- acknowledge Aboriginal peoples' spiritual, social, customary and economic use of the coastal zone
- recognise the coastal zone as a vital economic zone and support sustainable coastal economies
- mitigate current and future risks from coastal hazards, taking into account the effects of climate change
- support the objects of the Marine Estate Management Act.

The Coastal Management Act establishes a framework for coordinated coastal planning and management that supports public participation in the process. It also establishes unique objectives for each of the 4 management areas of the coastal zone.

The coastal management framework operates alongside other strategic planning processes such as regional plans and local strategic planning statements. The strategic planning framework is discussed later in these guidelines. Together, these processes set the vision and direction for strategic planning and land use along the NSW coast, to ensure a healthy environment and productive, connected communities.

The Resilience and Hazards SEPP

Chapter 2 (Coastal Management) of the *State Environmental Planning Policy (Resilience and Hazards) 2021* – also known as the Resilience and Hazards SEPP – carries out the objectives of the Coastal Management Act from a land-use planning perspective. It does this by specifying how development applications must be assessed if they fall within the coastal zone.

The Resilience and Hazards SEPP promotes an integrated and coordinated approach to development assessment. Its development controls are tailored to ensure proponents and consent authorities consider and address the critical issues for the coastal management area their proposal falls within. This is supported by detailed mapping of the coastal management areas of the coastal zone.

Coastal management programs

Under the Coastal Management Act, councils may prepare a coastal management program (and may be directed to do so in some instances). The purpose of such a program is to set the long-term strategy for the coordinated management of the coastal zone, and to achieve the objects of the Coastal Management Act. It gives councils, public authorities and local communities an opportunity to plan for, and carry out, actions that will help achieve local coastal management objectives, consistent with the objects of the Coastal Management Act.

A coastal management program must identify (among other matters):

- any proposed amendments to mapping of the relevant coastal management areas
- evidence to support any proposed amendments to the extent of the 4 coastal management areas
- information about these proposed amendments that can support the preparation of a planning proposal.

In Stage 1 of the process for a coastal management program, councils should consider the need for a planning proposal, such as to amend zoning or coastal management area mapping within the coastal zone. The studies and modelling that councils may do when preparing a coastal management program are highly valuable in preparing a planning proposal.

Coastal management manual and toolkit

The Coastal management manual provides guidance to help local councils prepare and carry out coastal management programs under the coastal management framework.

The manual imposes requirements and provides guidance about the preparation, contents, adoption, implementation, amendment and review of a coastal management program. It also gives technical information and guidance to help councils address the requirements of the Coastal Management Act, and a risk management process for councils to follow when preparing their programs.

The Coastal management toolkit has more technical information and guidance to help councils meet the requirements of the Coastal Management Act, the Resilience and Hazards SEPP and the Coastal management manual. The toolkit has links to more resources that councils may find useful in preparing and implementing a coastal management program.

View onto Wollumbin (Mount Warning) from Tweed River, Murwillumbah
–Tweed LGA / Bundjalung Country

Batemans Bay at sunrise
–Eurobodalla LGA / Yuin Country
(Photography: Destination NSW)

Marine estate management

The Marine Estate Management Act is the legislative framework for managing the NSW marine estate, including marine protected areas. The objects of the Act are to:

- provide for the management of the marine estate, based on principles of ecologically sustainable development
- promote the coordination of public authority functions for the marine estate
- provide for the declaration and management of a comprehensive system of marine parks and aquatic reserves.

The Marine Estate Management Act allowed for the creation of the Marine Estate Management Strategy. The strategy aims to ensure that government agencies address the key threats to the environmental, social, cultural and economic benefits of the marine estate in a holistic way that is based on evidence. Initiatives under the strategy can be used to inform coastal management plans or can be incorporated into them.

This update to the Coastal Design Guidelines is a project under Initiative 2 of the strategy, which focuses on delivering healthy coastal habitats with sustainable use and development.

NSW Marine Estate Management Strategy 2018-2028

Strategic planning framework

Regional plans

Regional plans set the framework, vision and direction for strategic planning for regional areas across NSW for the next 20 years. They cover land-use planning for future housing, jobs and infrastructure needs; maintaining a healthy environment; and creating connected communities.

Regional plans apply across multiple local government areas. Section 3.3 of the *Environmental Planning and Assessment Act 1979* requires regional plans to consider government policies and directives, such as these guidelines.

Regional plans inform local environmental plans (LEPs) and the assessment of planning proposals. The plans also help councils to prepare for and deliver growth and change, and to align their local planning strategies to place-based outcomes.

Local strategic planning statements

Councils across NSW prepare local strategic planning statements that set out a 20-year land-use framework specifically for their local government area. These help identify ways to manage growth and change.

A local strategic planning statement must be consistent with relevant regional plans. Councils must prepare a local strategic planning statement under section 3.9 of the Environmental Planning and Assessment Act and review the statement every 7 years.

A local strategic planning statement guides the review and preparation of local environmental plans and the assessment of planning proposals. It also helps councils align their local planning strategies to place-based outcomes.

Local planning directions

Planning proposals must follow the relevant local planning directions issued under section 9.1 of the Environmental Planning and Assessment Act. Local Planning Direction 4.2 (Coastal Management) applies to land that is within the coastal zone, as defined under the Coastal Management Act and identified by the Resilience and Hazards SEPP. Under this direction, planning proposals must include provisions that carry out and are consistent with:

- the objects of the Coastal Management Act and the objectives for the relevant coastal management areas
- the NSW Coastal management manual and associated toolkit
- NSW Coastal Design Guidelines 2023
- any relevant coastal management program that has been certified by the minister, or
- any coastal zone management plan under the *NSW Coastal Protection Act 1979* that still applies to the land under clause 4 of Schedule 3 of the Coastal Management Act.

Local Planning Direction 4.2 (Coastal Management) prohibits increased development or more intensive land use in certain areas such as land:

- within a coastal wetland and littoral rainforest area, or coastal vulnerability area identified by the Resilience and Hazards SEPP, or
- identified as affected by a current or future coastal hazard:
  - in a local environmental plan or development control plan, or
  - a hazard study or assessment prepared by or on behalf of a public authority, or relevant planning authority and planning proposal authority.

The local planning directions require planning proposals to consider a range of matters including flooding, biodiversity, infrastructure and regional planning priorities.

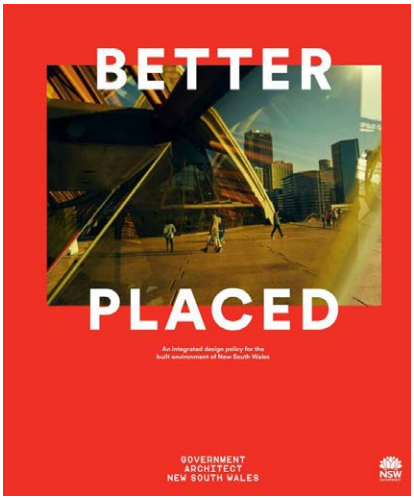
Design guidance

The Government Architect NSW provides strategic design leadership in architecture, urban design and landscape architecture. A core part of this work involves producing design policy frameworks and guidance. For example:

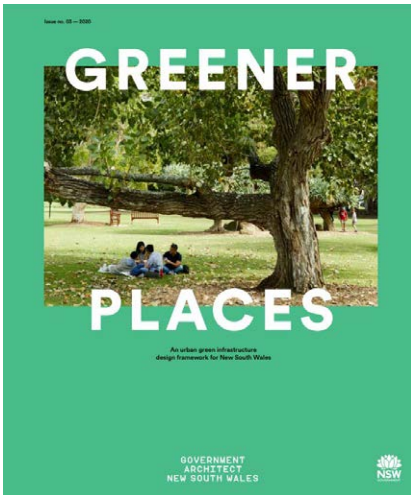
Better Placed is an integrated design policy that sets out good design for the architecture, public places and environments we want to inhabit now and those we make for the future.

Greener Places is a design framework for urban green infrastructure. The framework establishes principles for well-designed green infrastructure and provides information on how to design, plan and implement green infrastructure in urban areas throughout NSW.

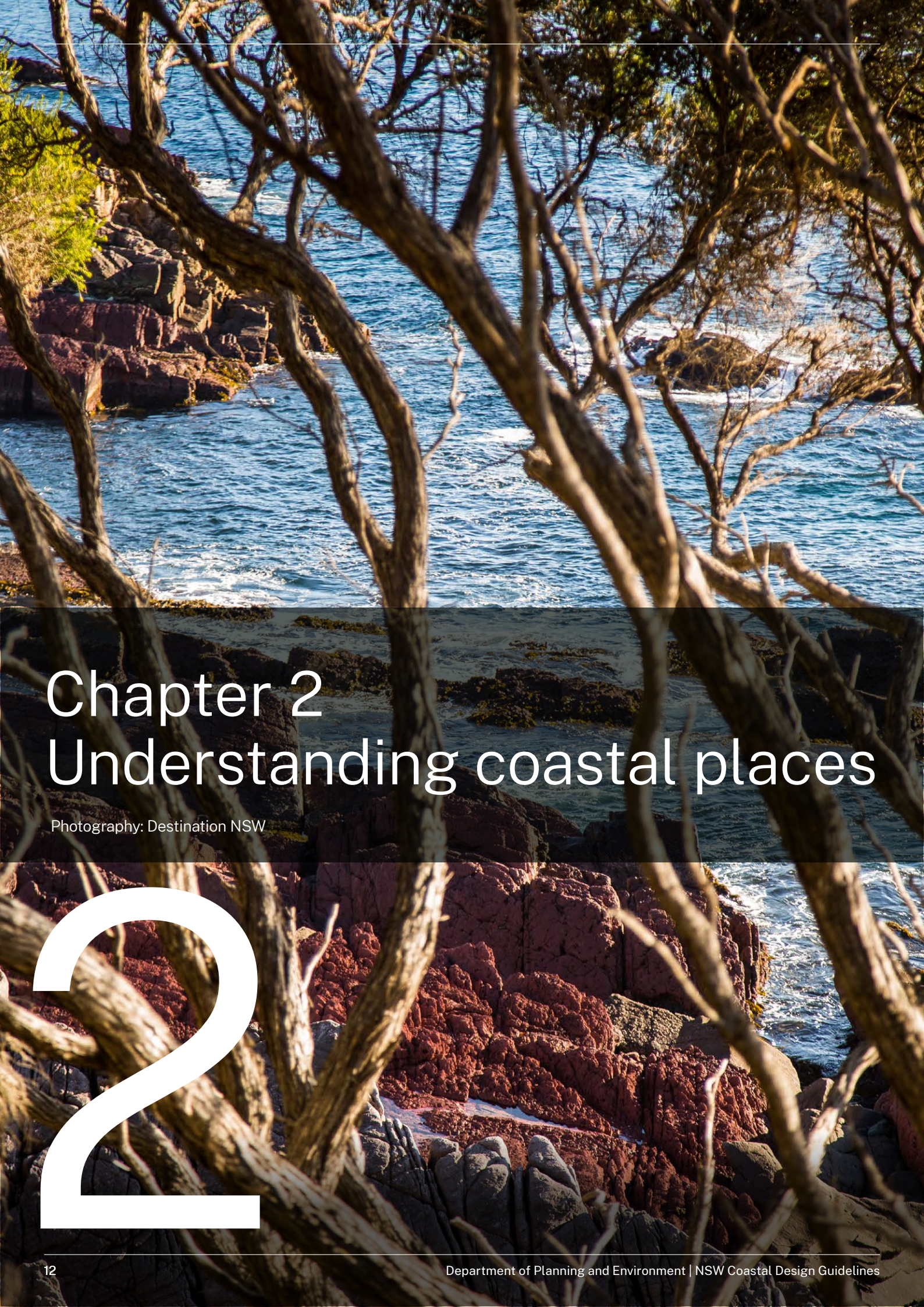
The Coastal Design Guidelines add to the Government Architect NSW's existing advice by providing design guidance specific to the natural and built character of NSW coastal places. See Section 2.1 for more details.



Better Placed



Greener Places



Chapter 2
Understanding coastal places

Photography: Destination NSW

2

2.1 Approach to place

All places have distinctive characteristics, services, infrastructure, employment and growth potential. These guidelines encourage approaching coastal places as inextricably connected to their surroundings.

Rather than seeing a place in isolation, consider:

- broader forces and pressures that shape a place, such as coastal processes and their interactions with development
- natural hazards that may interact with coastal processes and functioning, including sea level rise, severe storms, flooding, dune transgression, nuisance wind-blown (aeolian) sand, storm surges and east coast lows
- biodiversity, marine and estuarine ecosystems and water cycle impacts
- the visual connection between a place and its surroundings, such as how a building fits into a streetscape or is viewed from a nearby beach, foreshore or waterway
- the interdependencies between places, highlighting how property lot lines, settlement borders or administrative boundaries do not define or limit places.

A genuine understanding of place recognises how that place influences, and is influenced by, its context. This is particularly important for coastal places as the coastal environment is dynamic and constantly changing. For example, coastal processes can gradually or suddenly change the foreshore, while development pressures see change and renewal in the built environment.

By understanding this context and how it changes, we can ensure that designs are sensitive to natural and built coastal environments. In some cases, additional technical studies or environmental assessments may be necessary to understand certain aspects of place.

This chapter explores the common factors, features, pressures and opportunities of coastal places that inform a site analysis, which should take place in the early stages of every project. For advice on how to analyse a site, refer to place analysis guidance from the Government Architect NSW.

A place-based approach

A place-based approach involves a holistic understanding of context and the people who populate places to support the long-term needs of the wider community. It acknowledges a place's local knowledge and its unique history, culture, environment and economy.

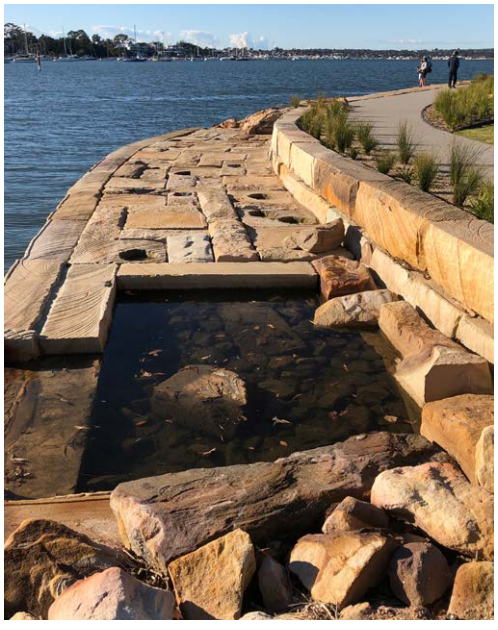
Place-based approaches recognise the relationships between the built and natural environments, and the social and economic characteristics of communities that give places their unique character and value.

Good design identifies what is special about a place. It also acknowledges the constraints, pressures and challenges a project will need to address for its place, within the broader urban or regional context.

Place-based analysis approaches these challenges by considering how pre-existing factors and the relationships between those influence and create a place and its unique local character.

Analysing coastal places in the context of their surrounding environment allows us to understand them in a more holistic way, including the factors that create, define and sustain those places. It also allows us to consider more deeply the challenges and opportunities for each place.

Coastal walk at Lennox Head
–Ballina LGA / Bundjalung Country



Carss Park Foreshore
–Georges River LGA / Bidjigal Country

2.2 Key factors shaping coastal places

We should begin trying to understand a coastal place by engaging with its Aboriginal custodians. Traditional Owners can share knowledge about cultural sites and current and historic relationships within the landscape.

The key factors shaping coastal places can be grouped into 3 broad categories – the natural environment, the built environment, and the social and economic context. These factors are not just the backdrop of a place, but directly affect, and are affected by, development or other activities that might happen there.

Natural environment

Coastal areas contain some of the most ecologically significant ecosystems in the world. The coast's unique natural environment is shaped by dynamic coastal processes and the interactions between water- and land-based ecosystems. This category includes factors such as:

- **landform** – the geological formation of the coastline and its unique features
- **blue systems** – aquatic (water-based) ecosystems and the water cycle of the coast, including catchments and coastal processes
- **green systems** – terrestrial (land-based) ecosystems including animals and their habitats.

The natural environment, and in particular the coastal zone, has evolved significantly over time as a result of both local and global coastal and physical processes. The past evolution of the natural environment and projected future changes should be considered in developing an understanding of coastal places.

Built environment

The built coastal environment is strongly shaped by the desire to experience and integrate with the natural coastal environment. When considering the built environment, we should assess:

- **connectivity** – the connections within and between settlements, habitats and resources along the coast
- **spatial framework** – the way a settlement's arrangement responds to the coastal landscape and natural hazards, and how it serves its community
- **built form** – the function, bulk and scale, shape, and arrangement of buildings in coastal settlements that creates local character, responds to the natural environment (including natural hazards) and supports the community.

Social and economic context

Social and economic factors are important influences on a place, and often go beyond what can be visually mapped. Factors shaping the social and economic context include:

- **productivity** – employment, industry and resources
- **society and culture** – demographics, community resilience, how people associate with each other, and how they feel about the place and its history
- **politics and governance** – systems of administration and participation that inform how to act and work within a place.

Connecting with Country

Connecting with Country is fundamental to place-based design and planning. It is integral to a well-designed built environment.

The Connecting with Country framework (PDF 11.1MB) gives guidance for understanding the value of Aboriginal knowledge in the design and planning of places. Connecting with Country is a response to Indigenous concepts of Country, taking a holistic and Country-led approach to the built environment that is guided by Aboriginal people. This approach encourages all of us to take up the challenge of thinking differently, working differently, and making decisions that prioritise Country.

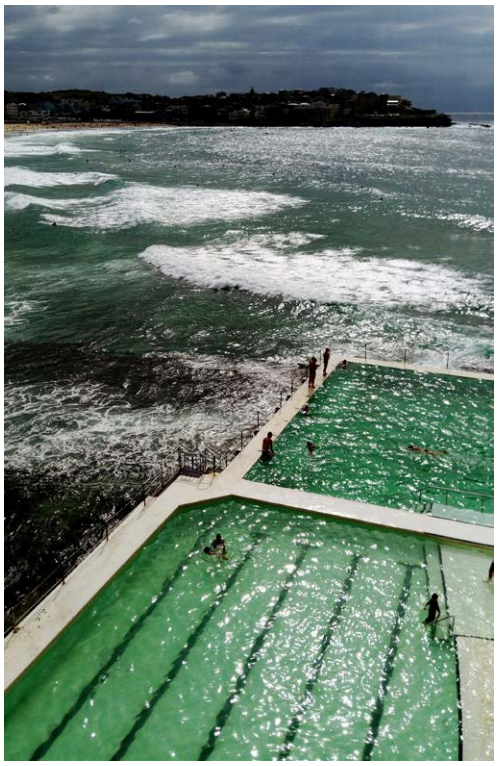
The Connecting with Country framework considers how design and planning processes are related to natural systems and elements including the land, water, air, plants, animals and humans. It outlines opportunities for industry and government to connect and engage respectfully and appropriately with Country through relationships with Aboriginal communities.

The Connecting with Country framework aims to identify and create opportunities to value Aboriginal wisdom and knowledge in the design, planning and management of our open spaces and built environments.

By analysing the significant factors shaping a place – the natural environment, the built environment and the social and economic context – and how they overlap and interact, we can describe the coastal place, its area of influence, and the processes or hazards that might affect it. This is an important step for understanding the characteristics, pressures and opportunities that a development proposal should address.

Section 2.3 of these guidelines explores the natural, built, social and economic factors in more detail. Identifying key features, characteristics, threats and hazards provides a starting point for the site analysis specific to coastal places.

Section 2.4 of these guidelines gives some examples of common pressures and opportunities in the coastal zone. These pressures and opportunities can affect and be affected by multiple factors and features of coastal places.



Ocean pools at Bondi Beach
–Waverley LGA / Gadigal Country

Dreaming Poles on Kiama Coastal Walk
–Kiama LGA / Wodi-Wodi and Dharawal Country

Sun setting over Clyde River, Batemans Bay – Eurobodalla LGA / Yuin Country (Photography: Destination NSW)

2.3 Common features of coastal places

Natural environment

There is often a complex interaction between landforms and blue and green systems found in the natural environment. Some threats and hazards may affect any one of these features, or all of them in extreme events. Many of the factors and features that shape our understanding of place are also affected by climate change.

Landform

Landforms are the geological formation of the coastline and its unique landscapes. Coastal landforms are diverse and complex, shaped by the wind, sand and water. They may appear permanent but are constantly changing. The dynamic formations of iconic coastal landscapes play a large part in defining the character of coastal settlements.

Characteristics and features

- Aboriginal cultural landscapes
- Escarpments and rock platforms
- Drowned river valleys
- Basins
- Beaches
- Estuaries and tidal flats
- Headlands and peninsulas
- Reefs and rock platforms
- Islands
- Coastal dunes
- Bays and inlets
- Harbour entrances

Threats and hazards

- Shoreline recession
- Dune transgression
- Coastal lake or watercourse entrance instability
- Coastal cliff or slope instability
- Coastal and tidal inundation
- Beach erosion and dune erosion
- Sea level rise
- Estuary entrance modifications
- Foreshore development impacts
- Landform change through major development

Cattai Wetlands – MidCoast LGA / Biripi Country (Photography: MidCoast Council)

Blue systems

Water-based ecosystems include fresh, brackish and saltwater bodies running from the land to the ocean. Natural processes including tides, winds and waves constantly influence these systems. Water is an essential part of the coast's value, supporting recreational, cultural and commercial activities. It is also habitat for unique species and ecological communities in riparian, saltmarsh, tidal and estuarine ecosystems.

Characteristics and features

- Rivers, creeks and estuaries
- Tidal coastal waters, lakes and wetlands
- Water catchments
- Intermittently closed and open lakes and lagoons
- Shorebirds, estuarine and marine animals and micro-organisms
- Groundwater
- Surf breaks
- Rock and ocean pools
- Intertidal zones
- Coastal processes (for example, king tides)
- Threatened species and threatened ecological communities
- Estuarine ecosystems, including seagrass, saltmarsh, mangrove, seaweed and kelp

Threats and hazards

- Coastal and tidal inundation
- Flooding
- Structural modification of waterways
- Disturbance to riparian corridors and habitat connectivity
- Loss of riparian, estuary and wetland habitat and fisheries
- Diffuse source water pollution
- Sediment build-up
- Increased turbidity and eutrophication
- Water extraction
- Pollution from commercial, recreational and agricultural activities
- Pollution from urban areas
- Exposure of, and pollution from, acid sulfate soils
- Low levels of dissolved oxygen in water as a result of flooding
- Weed, pest and pathogen incursion
- Sewerage leaks
- Legacy infrastructure harming surrounding waterways

Green systems

Green systems are the network of land-based ecosystems that extend along the length of the NSW coast. These green spaces may be on public or private land, and may include national parks and protected areas, parks, bushland, open spaces and green corridors within coastal settlements. They provide habitat for native species, offer opportunities for recreation, provide ecosystem services and contribute to reducing the effects of climate change.

Characteristics and features

- Culturally important species
- Bushland (including national parks and state forests)
- Mangroves and saltmarsh
- Littoral rainforests
- Riparian corridors
- Coastal wetlands and coastal floodplain vegetation
- Dune vegetation
- Terrestrial plants and animals
- Threatened species and threatened ecological communities
- Cleared fields, parks and gardens
- Urban tree canopy and street trees
- Degraded, regrowth and restoration areas

Threats and hazards

- Land clearing
- Species loss and extinction
- Habitat loss, fragmentation and isolation
- Changes to landform
- Changes to drainage due to tidal inundation, groundwater extraction, floodplain drainage or fill
- Dune erosion
- Loss of food for native animals
- Bushfires
- Extreme heat
- Extreme rainfall events, storms and east coast lows
- Monocultural and non-native planting
- Effects of pesticides on native species
- Increased contaminated stormwater run-off affecting surrounding waterways
- Weed, pest and pathogen incursion
- Introduction of predatory species, including domestic animals

Walkers heading towards Green Cape Lighthouse, Beowa National Park – Bega Valley LGA / Yuin-Monaro Country (Photography: Destination NSW)

Built environment

Connectivity

Connectivity along the coast has evolved over millennia. Beginning with migratory tracks and evolving to pathways linking special sites, settlements and resources, connectivity now includes maritime channels, cycleways, roads, rail and air travel. In coastal areas, providing connections to the water is an important aspect of connectivity, as is providing links within and between settlements.

Characteristics and features

- Traditional Aboriginal access routes
- Animal habitat and migration corridors
- Motorways and major arterial roads
- Town centre streets
- Public transportation networks
- Cycling and pedestrian access and connectivity
- Access to the foreshore and natural assets
- Marinas, harbours and boating routes
- Services (electricity, phone, internet)
- Parking and services

Threats and hazards

- Disruptions to habitat connectivity
- Natural disasters cutting off access
- Disruptions to coastal geomorphological processes
- Sea level rise affecting foreshore access, transport routes, low-lying streets and/or town centres
- Isolated coastal settlements
- Unregulated access to environmentally sensitive areas
- Lack of investment in services and infrastructure
- Global crises, including pandemic responses
- Increased visitation placing pressure on existing infrastructure
- Inability of Aboriginal peoples to access Country to undertake care activities and other cultural practices

Sea Cliff Bridge, Clifton –City of Wollongong LGA / Tharawal Country (Photography: Destination NSW)

Spatial framework

The spatial framework of a coastal place is the layout of that settlement, as well as the relationship between the built environment and the surrounding landforms and natural environment. A place's spatial framework is key to its identity and can make it distinct from other coastal places. The layout of a place is also a key factor in determining how well it serves its community and minimises its exposure to natural hazards.

Characteristics and features

- Settlement siting and orientation to coast
- Connections to waterways and bushland
- Street layout
- Aspect and outlooks
- Major civic spaces
- Streetscapes
- Urban blocks and sizes
- Residual spaces
- Density and permeability
- Walkability

Threats and hazards

- Car-oriented planning affecting pedestrian and non-vehicular movement and access
- Changing coastal processes affecting the built environment
- Erosion and inundation of foreshores
- Suburban sprawl
- Increased frequency and severity of natural disasters
- New development inconsistent with local character
- Loss of public space affecting surrounding waterways
- Sea level rise affecting low-lying settlements
- Dispersed commercial development, reducing main street vitality

Spatial orientation at Bronte –Waverly LGA / Gadigal Country (Photography: Destination NSW)

Built form

The way buildings and structures relate to the surrounding environment can support natural systems and reinforce the character of the settlement. Built form should respond to the character of a place, which in coastal areas is strongly shaped by natural landscapes and landforms, as well as community interactions with those places.

Characteristics and features

- Housing types
- Iconic and heritage buildings
- Siting and orientation of streets and buildings
- Industrial and commercial fabric
- Secondary structures
- Building materials
- Legacy or disused infrastructure
- Massing, height and density of development
- Local character, construction typologies and design of development
- Re-naturalised infrastructure and constructed wetlands
- Roads, footpaths and other impermeable surfaces
- Stormwater systems
- Coastal protection works
- Sewerage outfalls

Threats and hazards

- Loss of natural environment and habitat connectivity within coastal towns and villages
- Loss of heritage fabric
- Lack of built form diversity in residential and commercial spaces
- Out-of-character developments (complementary versus detracting development)
- Buildings that are not resilient, adaptable or relocatable in areas affected by coastal processes and hazards
- Lack of spaces for cultural activities
- Inappropriate materials and construction methods for the coastal environment
- Degradation of coastal infrastructure
- Imported fill that changes hydrology, run-off patterns and flood behaviour
- Sea level rise affecting essential services and infrastructure
- Buildings with inappropriate bulk, scale and character that undermine scenic values

Eden Killer Whale Museum – Bega Valley LGA / Yuin-Monaro Country (Photography: Destination NSW)

Social and economic context

Productivity

The economics of coastal settlements are closely linked to their resources, both natural and human. Local communities also depend on relationships with neighbouring communities, the surrounding region and, for some industries, national and international markets. The economic connections of a settlement can extend far beyond its boundaries.

Characteristics and features

- Local resources and assets
- Major industries (for example, tourism and aquaculture)
- Key businesses and services
- Economic links with nearby settlements
- Commercial and social infrastructure
- Local workforce and population
- Commercial and recreational boating and fishing
- Transport infrastructure (for example, rail and major roads)
- Regional initiatives for social events
- Redundant buildings and infrastructure from previous land uses

Threats and hazards

- Natural disasters and other shocks and stresses disrupting local industries
- Constraints on Aboriginal business development
- Shifts in the tourism industry
- Seasonal influxes and downturns
- Loss of national and global supply and demand
- Economic downturns and demographic changes affecting local rate base
- Youth emigration and ageing of population reducing local workforce
- New technologies disrupting traditional industries
- Fragmented market for local businesses
- Climate change effects – such as sea level rise, flood and erosion – affecting transport networks, liveability, productivity, and service provision

Society and culture

The characteristics of a community, how its people gather, and how they feel about the place and its history, create its society and culture. Society and culture tie communities together and reinforce their unique identities. Cultural activities are highly diverse and include Aboriginal practices that have evolved from deep understandings of and connections with place.

Characteristics and features

- Local landmarks, institutions, and events
- Built and lived heritage
- Major civic institutions
- Major community groups
- Recreational infrastructure
- Community infrastructure
- Cultural landscapes, sites, activities, and practices

Threats and hazards

- Changing demographics shifting community needs
- Rapid population growth and development demand
- Worsening housing affordability and homelessness
- Lack of awareness of cultural heritage
- Communities lacking social infrastructure and/or spaces for cultural events
- Externally driven development affecting local identity and activities
- Absentee property owners
- Lack of value placed on historic or cultural landscapes in redevelopment
- Coastal hazards and sea level rise damaging or inundating significant cultural sites
- Residual, underused or poorly activated spaces
- Coastal processes affecting beach amenity, access to recreational infrastructure, and tangible and non-tangible cultural values

Politics and governance

Politics and governance relate to the ways communities manage and maintain the place they live in. From community involvement and federal agency input, through to Aboriginal stewardship, all systems of administration are based on duties of care.

Characteristics and features

- Community members and groups
- Social, recreational, and educational organisations
- Business organisations
- Local community and council engagement and collaboration
- Council community plans and policies
- Federal and state projects and programs
- Partnerships with private, commercial and non-government entities
- Decision-making processes and bodies
- Community, business organisation and other stakeholder consultation policies and practices
- Traditional Owner consultation policies and practices
- Community leaders and advisory groups
- Funding programs and reporting arrangements
- Roles and responsibilities of different levels of government

Threats and hazards

- Lack of cultural awareness in decision-making
- Difficulties engaging communities in decision-making
- Lack of understanding of whom to consult, and how to consult effectively and respectfully
- Availability and delivery of infrastructure funding
- Availability and delivery of state and federal programs
- Balancing federal and state plans and policies with local ambitions, interests, and conditions
- Differing decision-making and program time frames across levels of government
- Limitations of emergency response infrastructure and/or funding
- Competing interests – social, cultural, economic and environmental

Worimi Conservation Lands – Port Stephens LGA / Worimi Country

2.4 Common pressures and opportunities

When undertaking strategic planning or urban development, there are common pressures and opportunities that affect or are affected by the coastal context of the place. Consider how your proposal could respond to some of these, particularly for large-scale developments with significant impact.

Pressures

- Increasing population and development pressures along the coast can make it difficult to retain existing local character, protect surrounding environments and retain heritage values.
- Lack of infrastructure and services can put pressure on growing populations and changing demographics.
- Unsafe and/or degraded pedestrian environments and cycleways limit active movement within and between settlements.
- Privatisation of streets, open space, views and foreshores may disconnect or reduce public access, amenity and scenic values of the coast.
- Uncontrolled vehicular and pedestrian access can degrade sensitive environmental areas, including wetlands, waterways, foreshore vegetation and coastal dunes.
- Urban runoff can result in poor water quality in waterways, coastal lakes and the marine environment.
- Ribbon development and poorly designed urban release areas can reduce the landscape breaks (of both natural and rural lands) that separate and articulate settlements, affecting the scenic quality of the coast.
- Without adaptive management, buildings and infrastructure may be increasingly vulnerable to the effects of natural hazards made worse by climate change.
- Redundant, disused or failing legacy infrastructure may harm coastal environments and may limit public access to and amenity of areas such as coastal and estuary foreshores.

Figure 1. A coastal settlement in NSW displaying many of the common pressures (Nearmap)

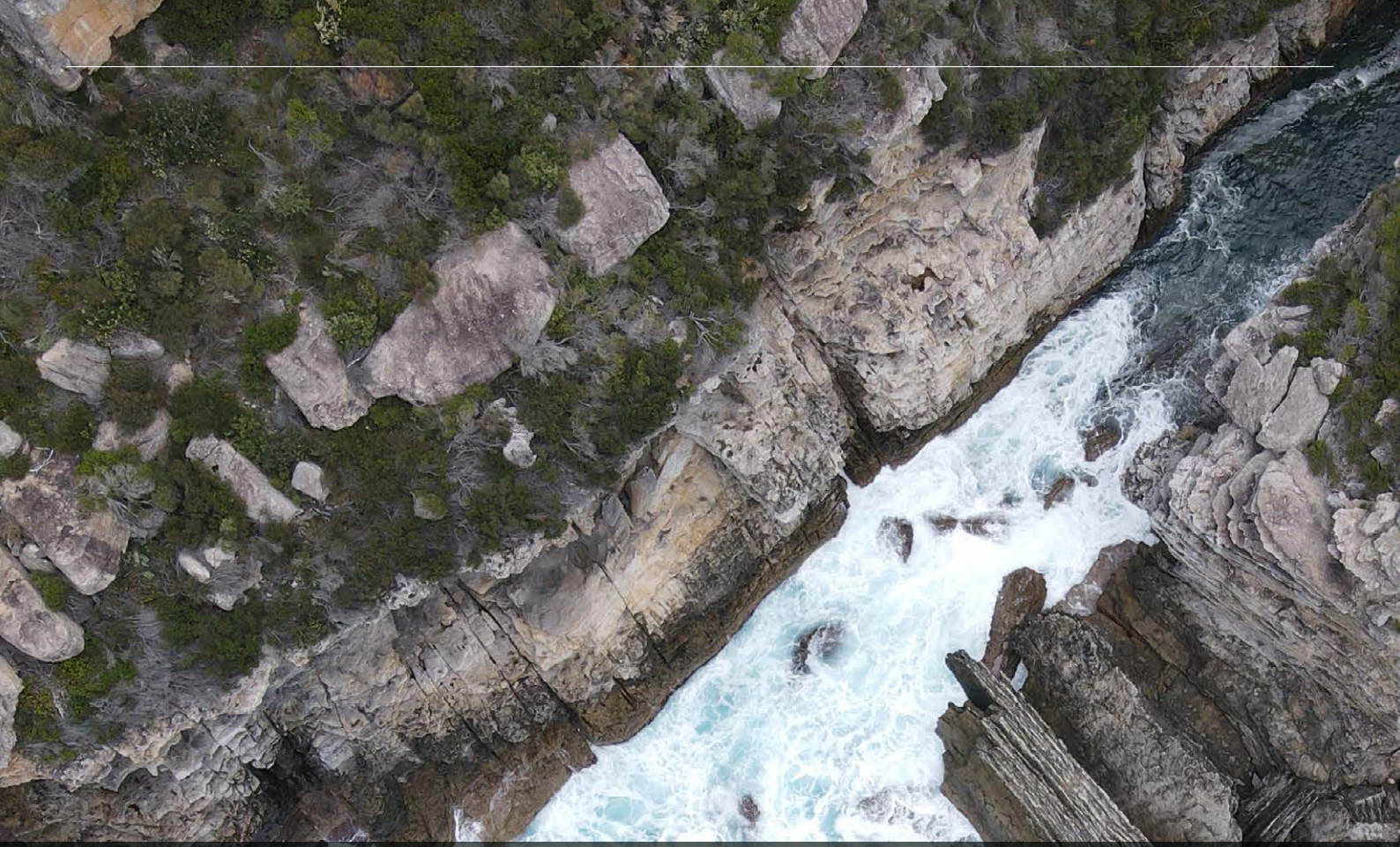
The coastal settlement shown in **Figure 1** has little open space for the population size, and the open spaces that do exist are disconnected. There is limited foreshore setback for public use, meaning the foreshore area has become privatised and highly developed. This makes access to the foreshore difficult and exposes residential buildings to coastal hazards.

Opportunities

- Protect and enhance the unique qualities that attract people to the place and set it apart from other locations along the coast – for example, scenic or unusual landforms, natural events or phenomena, or wildlife.
- Urban renewal can provide opportunities to:
  - avoid, minimise or mitigate the risk of coastal hazards through reconsideration, adaptation or redevelopment of existing developed areas
  - improve public access and diversity of uses along the coastal foreshore (including along estuaries) and key coastal environmental assets such as coastal wetlands and littoral rainforests
  - improve building design and construction to increase resilience to natural hazards
  - increase green cover and make pedestrian pathways and cycleways more accessible, connected and user-friendly
  - rehabilitate or re-naturalise degraded coastal assets such as coastal wetlands, coastal floodplains, creeks, remnant littoral rainforests, bushland and rocky foreshores
  - integrate nature-based solutions that support land and water ecosystems through urban design outcomes
  - decommission legacy infrastructure that is no longer appropriate, or adaptively re-use it to better serve the community, economy and/or environment.
- Gain mutual benefits and develop economic and cultural synergies with neighbouring coastal and inland settlements.
- Allow existing small settlements near the natural coastal environment to create opportunities for eco-tourism, artist precincts and migration into regional areas for lifestyle reasons.
- Upgrade public transport and cycle and pedestrian networks in under-serviced coastal places to improve accessibility and amenity for current and future residents.
- Restore and enhance access for Aboriginal peoples to undertake care activities and other cultural practices.
- Apply water-sensitive urban design practices that improve water quality and management in new developments and renewal projects.
- Integrate new indigenous landscaping and green infrastructure with existing native vegetation, to improve habitat connectivity, natural character and environmental outcomes.

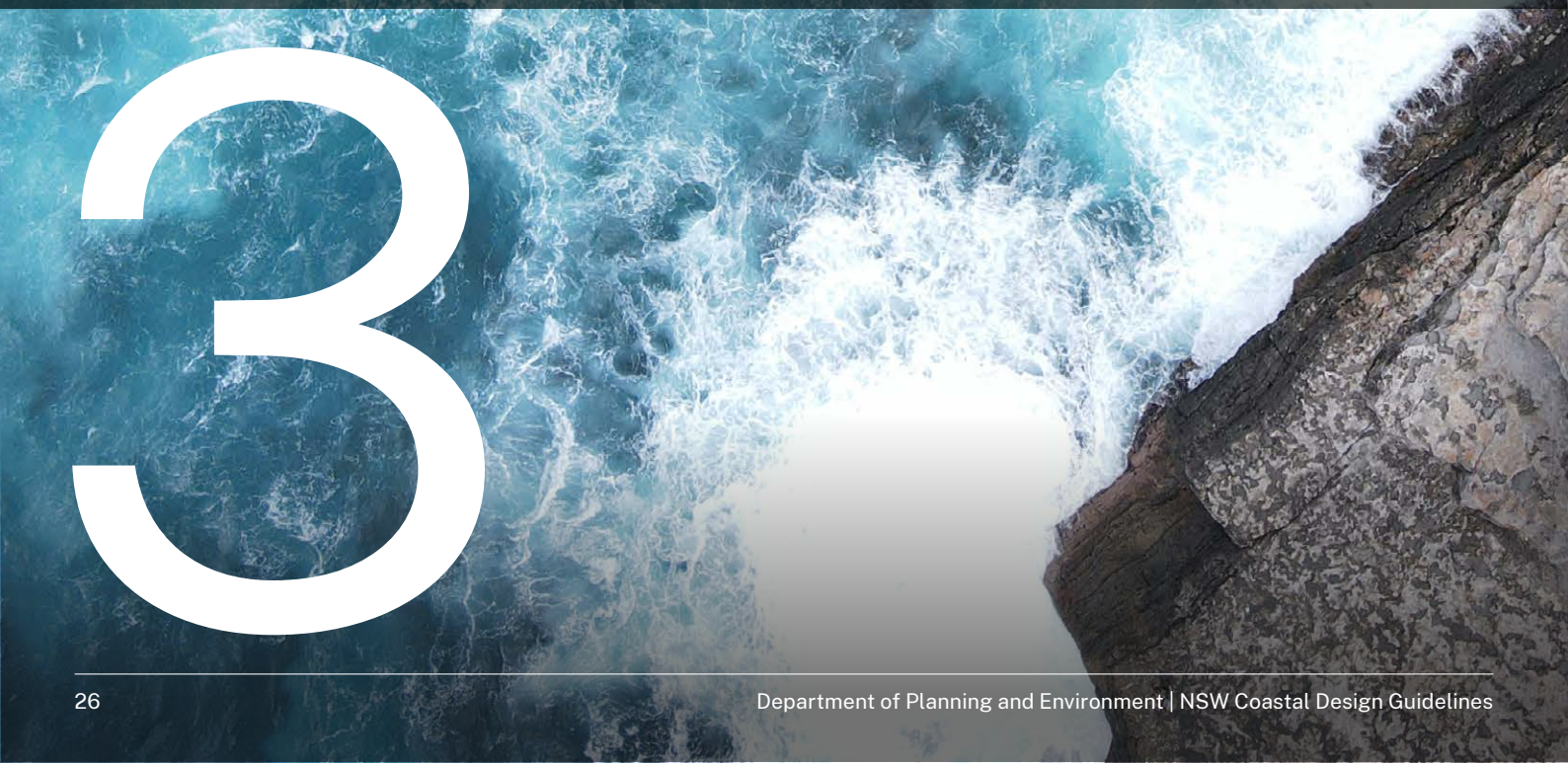
Figure 2. Foreshore revitalisation at Carss Park (Bidjigal Country) by Georges River Council

The foreshore revitalisation at Carss Park shown in **Figure 2** demonstrates many of the opportunities presented by urban renewal. Initially, an eroded concrete seawall provided little public access and limited space for intertidal habitat. The revitalised foreshore now includes expanded pedestrian and bike paths, a repaired seawall to reduce erosion, and a re-naturalised foreshore to allow intertidal habitat to flourish.



Chapter 3
Planning proposals in the coastal zone

Photography: Max Chew



3

3.1 Overview

A person or council seeking to change local planning controls must prepare a planning proposal under the Environmental Planning and Assessment Act.

This chapter sets out how these guidelines apply to a planning proposal in the coastal zone.

As outlined in the department's Local Environmental Plan Making Guideline (PDF 10MB), a planning proposal explains the intended effect of a proposed local environmental plan (including an amendment to an existing plan, such as how land is zoned). It sets out the justification for making that local environmental plan. The planning proposal must have strategic merit, followed by site-specific merit.

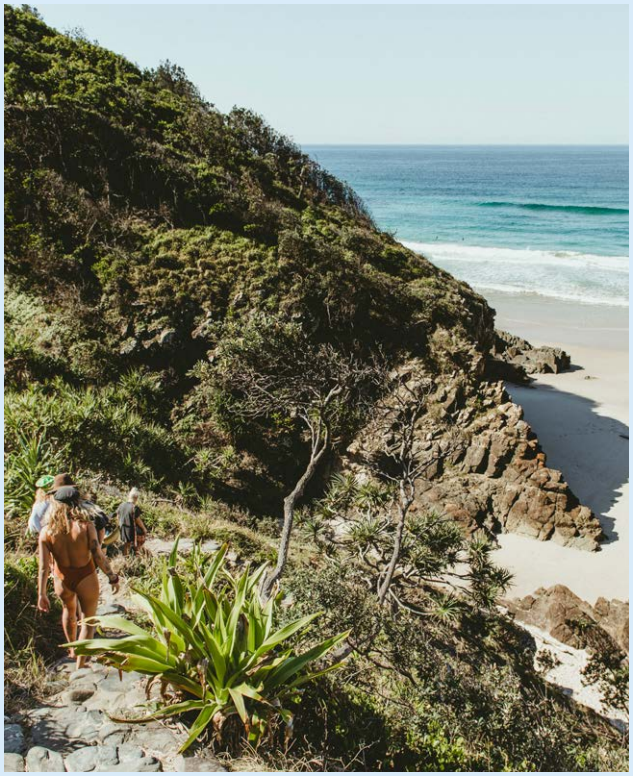
A planning proposal must demonstrate it has **strategic merit** by identifying how it:

- puts into practice a regional plan, place stategy or, precinct plan, including any draft released for public comment
- puts into practice a relevant local strategy that has been endorsed by the department, such as the local strategic planning statement
- responds to a change in circumstances, such as investment in new infrastructure or changing demographic trends, that have not been recognised by existing planning controls.

If the planning proposal meets the strategic merit test, it must also demonstrate it has **site-specific merit**, considering:

- the natural environment, including known significant environmental values, resources or hazards
- the existing uses, approved uses and likely future uses of land near that to which the proposal applies
- the services and infrastructure that are, or will be, available to meet the demands arising from the proposal and any proposed financial arrangements for infrastructure provision.

We have included examples of desirable practices in a hypothetical coastal settlement to demonstrate how to apply these guidelines.



Whites Beach, Byron Bay – Byron LGA / Bundjalung Country
(Photography: Destination NSW)

The justification for a planning proposal in the coastal zone must identify if the planning proposal puts into practice and is consistent with:

- relevant legislation
- strategic plans
- state environmental planning policies (SEPPs)
- local planning directions

such as those listed in section 1.3 of these guidelines.

Under Local Planning Direction 4.2 (Coastal Management), planning proposals that seek to amend a local environmental plan in the coastal zone must be consistent with the NSW Coastal Design Guidelines. To achieve this, the planning proposal authority and local plan-making authority will assess a proposal against the requirements set out in section 3.2 of these guidelines.

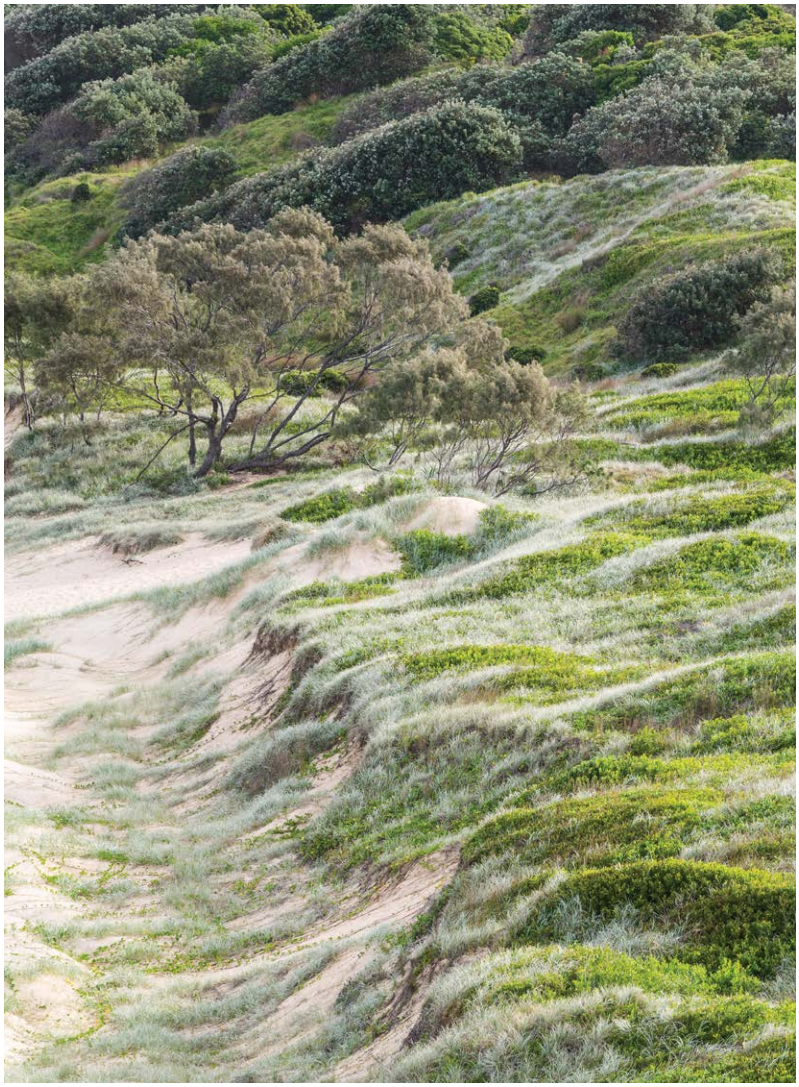
The assessment checklist in **Appendix 1** is a guide to assessing if a planning proposal in the coastal zone puts these guidelines into practice. The planning proposal authority and local plan-making authority must use the checklist to record how they have considered the relevant requirements for each planning proposal.

3.2 Key outcomes for planning proposals in the coastal zone

Planning proposals in the coastal zone must demonstrate how they have addressed the requirements in this section. This is to ensure the desired coastal outcomes are achieved. The desired outcomes are grouped by broad thematic objectives. However, we acknowledge that some outcomes may be relevant to more than one objective.

Each planning proposal must identify all objectives, outcomes and requirements that are relevant to it. To help identify which requirements may be relevant, we have listed them under one or more coastal management areas (see the assessment checklist in **Appendix 1**).

> Planning proposals must use the assessment checklist at **Appendix 1** to demonstrate consideration of all requirements for the relevant coastal management area(s).



Dunes at Woolgoolga Beach – City of Coffs Harbour LGA / Gumbaynggirr Country

Inconsistencies

If there is an inconsistency between the requirements, follow the hierarchy of coastal management areas below, from highest to lowest. This is in line with section 10(3) of the *Coastal Management Act 2016.*

Hierarchy of coastal management areas:

1. Coastal wetlands and littoral rainforests area
2. Coastal vulnerability area
3. Coastal environment area
4. Coastal use area.

Where the planning proposal is inconsistent with any of the requirements, those inconsistencies must be explained and justified in the planning proposal.

Desired outcomes and their requirements

Requirements under other relevant legislation, policies and local planning directions may also apply.

A. Protect and enhance coastal environmental values

Figure 3 illustrates desirable practices for this outcome.

Outcome A.1 Protect coastal ecosystems

Protect ecological values and functioning, prevent degradation and improve the resilience of natural systems.

Sources: Coastal Management Act s3(a) and s8(2); Resilience and Hazards SEPP s2.8, s2.10 and s2.11(1).

Requirements

a. Avoid development on undeveloped headlands and significant coastal landforms.

b. Do not increase development or intensify land uses where there is existing development on headlands and significant coastal landforms.

c. Identify, protect and enhance sensitive coastal ecosystems including coastal wetlands, littoral rainforests and other coastal threatened ecological communities that may be affected by development.

d. Maintain and protect the presence of beaches, rock platforms, coastal dunes, riparian vegetation and the natural features of foreshores, including along estuaries and coastal lakes.

e. Use environmental buffers and limit the number of access points and pathways to protect coastal ecosystems. In some cases, it may not be appropriate to allow public access to areas with highly sensitive ecosystems or animal populations.

f. Consider if the planning proposal is needed or if development zones could be better located to minimise effects on biodiversity.

g. Avoid development that may disturb, expose or drain areas of Class 1 and Class 2 acid sulfate soils.

h. Consider direct and indirect effects of development, including any necessary infrastructure, on water quality, water quantity and hydrological flows of waterways and groundwater.

Outcome A.2 Protect coastal wetlands and littoral rainforests

Protect coastal wetlands and littoral rainforests in their natural state, including their biological diversity and ecosystem integrity, and rehabilitate degraded areas. Account for climate change.

Sources: Coastal Management Act s3(a), s3(g) and s6; Local Planning Direction 4.2(3) (Coastal Management).

Requirements

a. Identify coastal wetlands and littoral rainforests, including areas that could be rehabilitated or restored in the future, and do not increase development or intensify land uses in these areas.

b. Allow for the adaptive management of stormwater run-off so that the quality of water leaving the site is better than pre-development quality to lessen effects on coastal wetlands or other sensitive receiving environments.

c. Provide environmental buffers and riparian corridors that enable the long-term management and protection of areas of biodiversity and ecosystem integrity.

d. Identify and protect areas that allow for landward migration pathways for coastal wetlands to respond to climate change.

e. Exclude land uses that affect the natural state of coastal wetlands and littoral rainforests or that will make it harder to rehabilitate these ecosystems in the future.

Outcome A.3 Protect marine parks and aquatic reserves

Restrict land uses and development that will harm the environmental, economic, social and cultural values of marine parks and aquatic reserves.

Sources: Coastal Management Act s3(m); Marine Estate Management Act s22, s33 and s56.

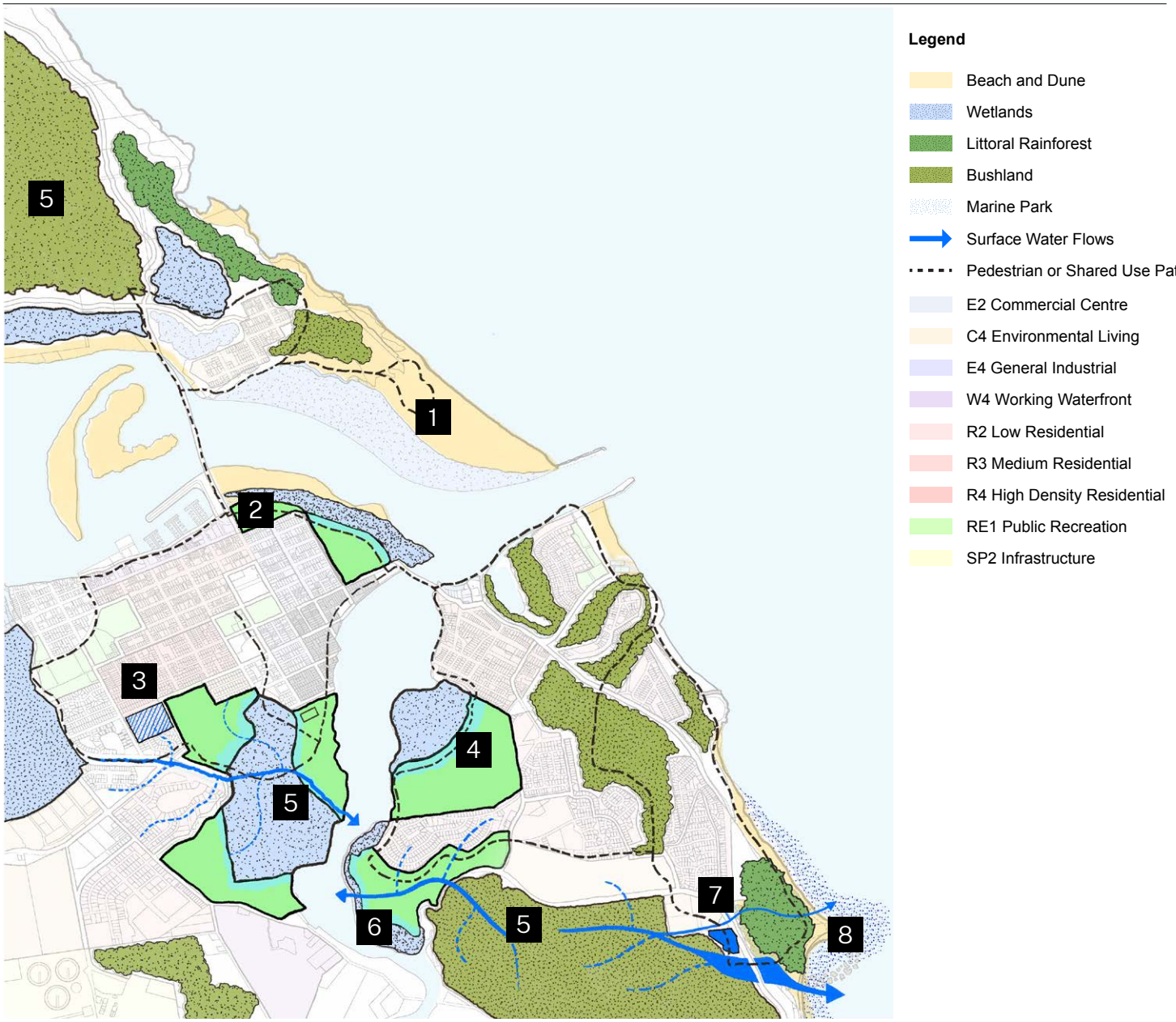
Requirements

a. Avoid development and land uses that affect the environmental, economic, social and cultural values of marine parks and aquatic reserves.

b. Protect the ecological health of marine parks and aquatic reserves, including providing for riparian vegetation and buffers in their catchments.

Aerial view of Merimbula Point – Bega Valley LGA / Yuin-Monaro Country

Figure 3. Desirable practices for Outcome A



1 Dune system and surrounds has been left undeveloped and zoned for conservation (A.1(a)).

2 A rezoning to create commercial areas along the foreshore included the creation of green space to protect the neighbouring wetland (A.1(e)).

3 A planning proposal to increase density includes measures to manage stormwater runoff to the downstream wetland and estuary (A.2(b)).

4 Open green space acts as a buffer to sensitive wetlands and provides space for migration of wetlands in response to climate change (A.1(e), A.2(d)).

5 Access and pathways through sensitive coastal ecosystems are limited; no access provided to highly sensitive areas (A.1(e)).

6 Areas of vegetation should be of a sustainable width and gallery stands avoided. In this case, the coastal wetland has been historically cleared and the remaining area is being protected, with space for migration of wetlands provided (A.2(c), A.2(d)).

7 Stormwater runoff from residential area is actively managed so the quality of water leaving the site is better than pre-development quality, before flowing downstream into the waterways and marine park (A.2(b), A.3(b)).

8 Headland and surrounds maintained as undeveloped area (A.1(a)).

B. Ensure the built environment is appropriate for the coast and local context

Figure 4 illustrates desirable practices for this outcome.

Outcome B.1 Respond to and protect elements that make the place special

Ensure development protects and, where possible, enhances the natural beauty of coastal landforms, foreshores and other unique coastal features.

Sources: Coastal Management Act s9(2); Resilience and Hazards SEPP s2.11(1).

Requirements

a. Integrate development within the natural topography of the site and ensure land use, building scale and height respond sympathetically to coastal landforms.

b. Ensure the intended form and footprint of development does not dominate coastal elements, including foreshores, public spaces and other areas of natural beauty.

c. Incorporate adaptive, water-sensitive urban design into the development footprint to reduce run-off and manage water quality within receiving environments.

d. Ensure that lot sizes, building heights and density are appropriate for the coastal settlement, and complement the existing or desired local character, supported by place-based strategies.

e. Avoid development that would harm geological features and geoheritage.

Outcome B.2 Ensure urban development complements coastal scenic values

Urban development does not compete with or erode coastal scenic values or reduce public access.

Sources: Coastal Management Act s9(2); Resilience and Hazards SEPP s2.11.

Requirements

a. Limit ribbon development and urban sprawl wherever possible. In certain locations, place-based strategies may support increased development density and building heights as a better response to urban growth.

b. Use greenbelts to create, maintain and mark out separation between settlements.

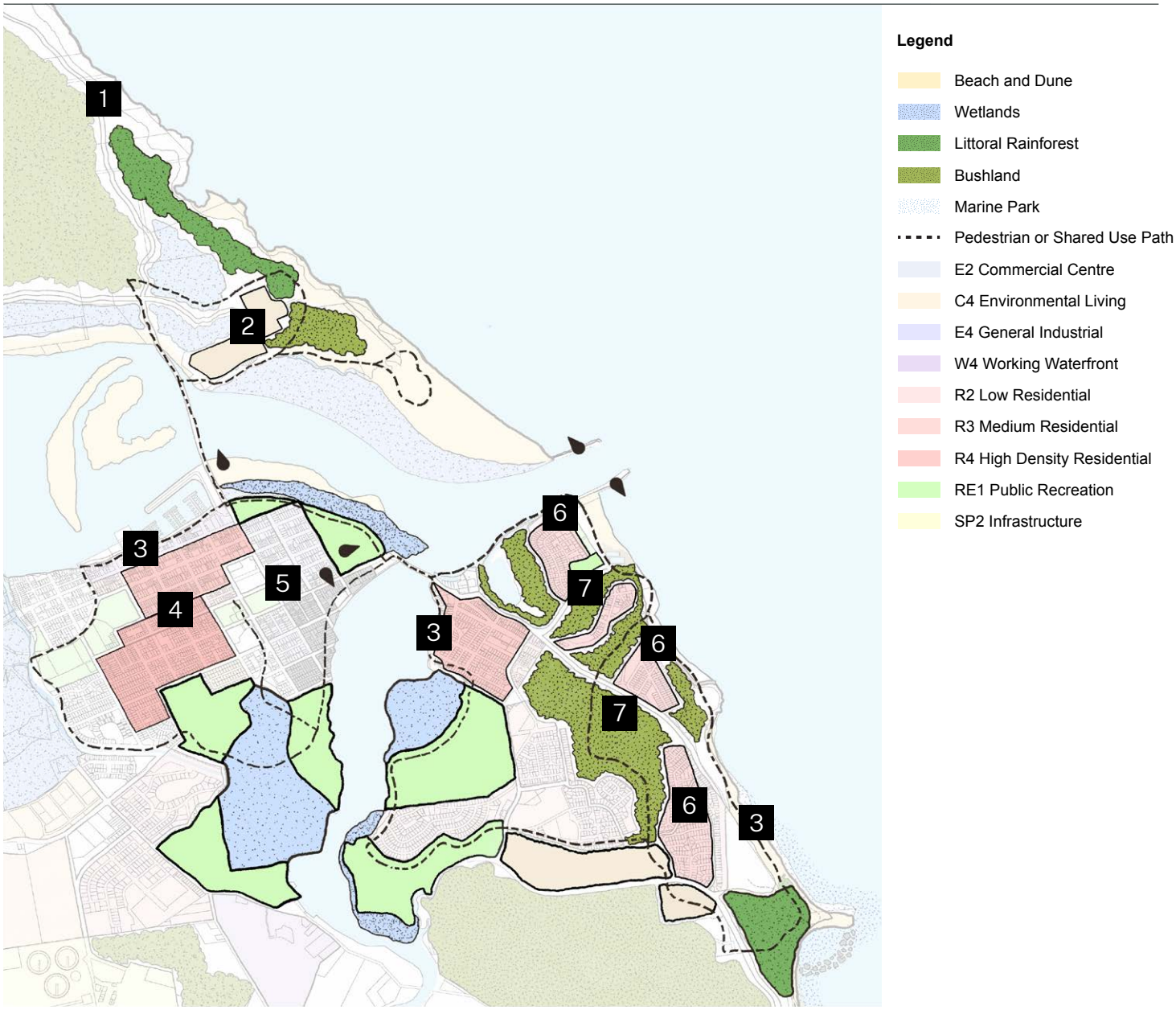
c. Consider effects on scenic values and maintain publicly accessible views to significant landmarks.

d. Ensure that building heights consider the effect on views from different vantage points.

e. Retain or create views from public spaces. Prioritise this over creating views from private property.

f. Provide for active transport links along foreshores, including along estuaries and coastal lakes, and between settlements to increase public access and amenity.

Figure 4. Desirable practices for Outcome B



1 Ribbon development has been avoided in this area through appropriate zoning (B.2(a)).

2 Residential development is sympathetic to coastal character and landforms, with lower density and building heights used to preserve views (B.1(a), B.1(b), B.1(d)).

3 Active transport links are provided along foreshores to increase public access and amenity (B.2(f)).

4 Development density and height responds to topography, transitioning down towards the foreshore (B.1(a)).

5 Building heights here consider the impact on views from different vantage points (B.2(d)).

6 Low-density development is appropriate near the foreshore (B.1(b), B.1(d)).

7 Greenbelts between settlements provide an environmental buffer to development and articulate separation between settlements (B.2(b)).

C. Protect and enhance the social and cultural values of the coastal zone

Figure 5 illustrates desirable practices for this outcome.

Outcome C.1 Protect and promote heritage values

Protect heritage values, items and sites from the impacts of both development and climate change. Promote Aboriginal and non-Aboriginal heritage as appropriate.

Sources: Coastal Management Act s3(c) and s9(2)(a); Resilience and Hazards SEPP s2.11(1)(a); Local Planning Direction 3.2 (Heritage Conservation); Designing with Country.

Requirements

a. Ensure development does not harm heritage values or sites.

b. Work collaboratively with local Aboriginal people before and throughout the planning proposal process.

c. With permission and guidance from local Traditional Custodians, identify and emphasise significant features of coastal land and sea Country.

d. With permission and guidance from local Traditional Custodians, identify and protect sacred and significant areas through the appropriate siting of development.

e. Ensure land use, building type, scale and height respond to heritage items and areas.

Outcome C.2 Provide public access to significant coastal assets

Ensure that people of all ages and abilities can access and enjoy the coast.

Sources: Coastal Management Act s3(b), s3(g) and s8(2)(f); Resilience and Hazards SEPP s2.9(b) and s2.11.

Requirements

a. Protect and, where practical, improve, public amenity, access to and use of beaches, foreshores, rock platforms, geoheritage sites and headlands, unless you must restrict access for public safety or for environmental or cultural protection. In doing so, consider both current and projected future coastal hazards.

b. Identify opportunities to maintain and improve existing public access to beaches, foreshores, coastal waters and coastal lakes that support active and passive recreation activities, where this does not interfere with existing coastal industries.

c. Consolidate access points and consider alternative access to protect sacred and significant Aboriginal cultural areas.

d. Maintain and improve foreshore access and connections to existing or proposed networks of public open spaces. This includes waterways, riparian areas, bushland and parks for active and passive recreation.

e. Consider opportunities to protect and improve habitat connectivity through settlements, such as those described in the *Greener Places Design Guide*.

f. Avoid development on coastal dunes and foreshore reserves unless it is for essential public purposes, such as surf life-saving club buildings. Any building or structure located on dunes must be of lightweight construction and relocatable.

g. Define the boundaries of development sites with a public edge – for example, a pedestrian pathway or public laneway.

h. Prevent the privatisation of coastal open space by ensuring development next to foreshores is set back, maintains public access and accessibility, and provides links and connections to other public accessways.

Outcome C.3 Protect public amenity

Protect solar access, recreational use and amenity of public spaces, including foreshores.

Sources: Coastal Management Act s3(b); Resilience and Hazards SEPP s2.11(1)(a).

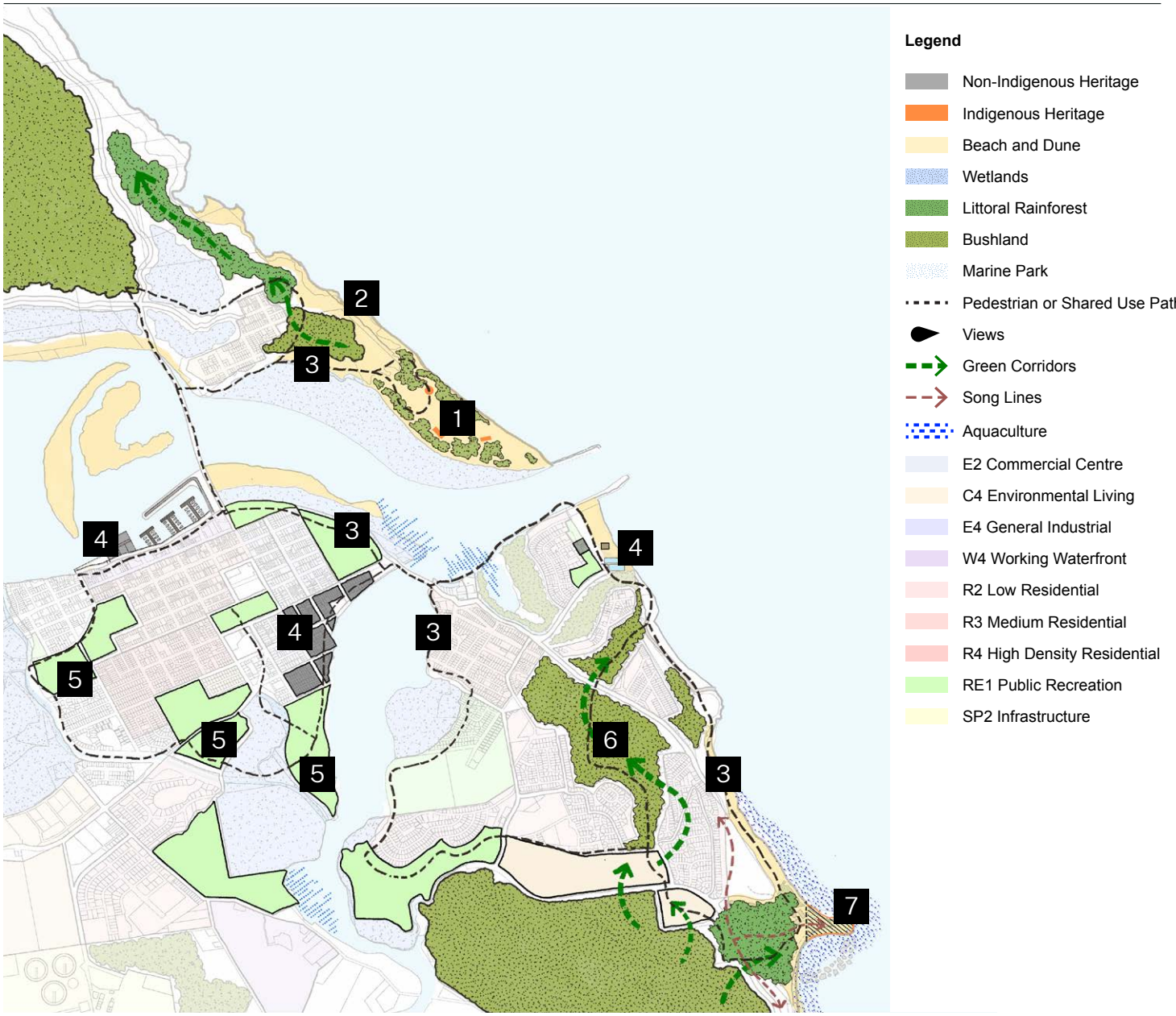
Requirements

a. Avoid development that will overshadow the beach, foreshore or public domain. Apply the standard that there must be no overshadowing before 4 pm (midwinter) and 7 pm (Eastern Daylight Saving Time).

b. Protect the amenity of public spaces from buildings, structures or land uses that may be visually and/or acoustically intrusive or create wind funnels.

Maroubra Beach – City of Randwick LGA / Bidjigal-Gadigal Country

Figure 5. Desirable practices for Outcome C



1 With permission and guidance from local Traditional Custodians, access is provided to an Aboriginal cultural site. Access points are limited and well-defined (C.1(c), C.2(c)).

2 Development on coastal dunes and foreshore reserves is avoided unless it is for essential public purposes (C.2(f)).

3 Access to and along the foreshore is provided (C.2(a), C.2(b), C.2(h)).

4 Heritage significant buildings and structures are protected and retained (C.1(a)).

5 Connectivity is provided between public open spaces (C.2(d)).

6 Habitat connectivity is protected and enhanced through settlements (C.2(e)).

7 Access is restricted to the headland as an Aboriginal cultural site and geoheritage site. Access along the coastline provides views towards the site, while ensuring it remains inaccessible for conservation purposes (C.1(a), C.1(d), C.2(c)).

D. Support sustainable coastal economies

Figure 6 illustrates desirable practices for this outcome.

Outcome D.1 Support sustainable industries and recreational activities that depend on the coast

Protect and enhance sustainable coastal industries and recreational activities.

Sources: Coastal Management Act s3(d); Biodiversity and Conservation SEPP 2021 s6.28.

Requirements

a. Ensure that development will not harm sustainable coastal industries needing waterfront access, or recreational use of the coastal environment.

b. Protect and improve essential facilities such as access ramps and jetties for sustainable coastal industries needing waterfront access.

c. Ensure access ramps, jetties, pontoons, groynes and other structures do not impede navigation on the water or harm coastal landforms or impair processes such as surf breaks.

d. Ensure that the proposal considers how development in a waterway may affect the land.

Outcome D.2 Promote green infrastructure

Promote multi-functional green infrastructure that provides tourism, cultural and recreational opportunities.

Sources: Marine Estate Management Strategy 2018–2028 Initiative 2; Greener Places.

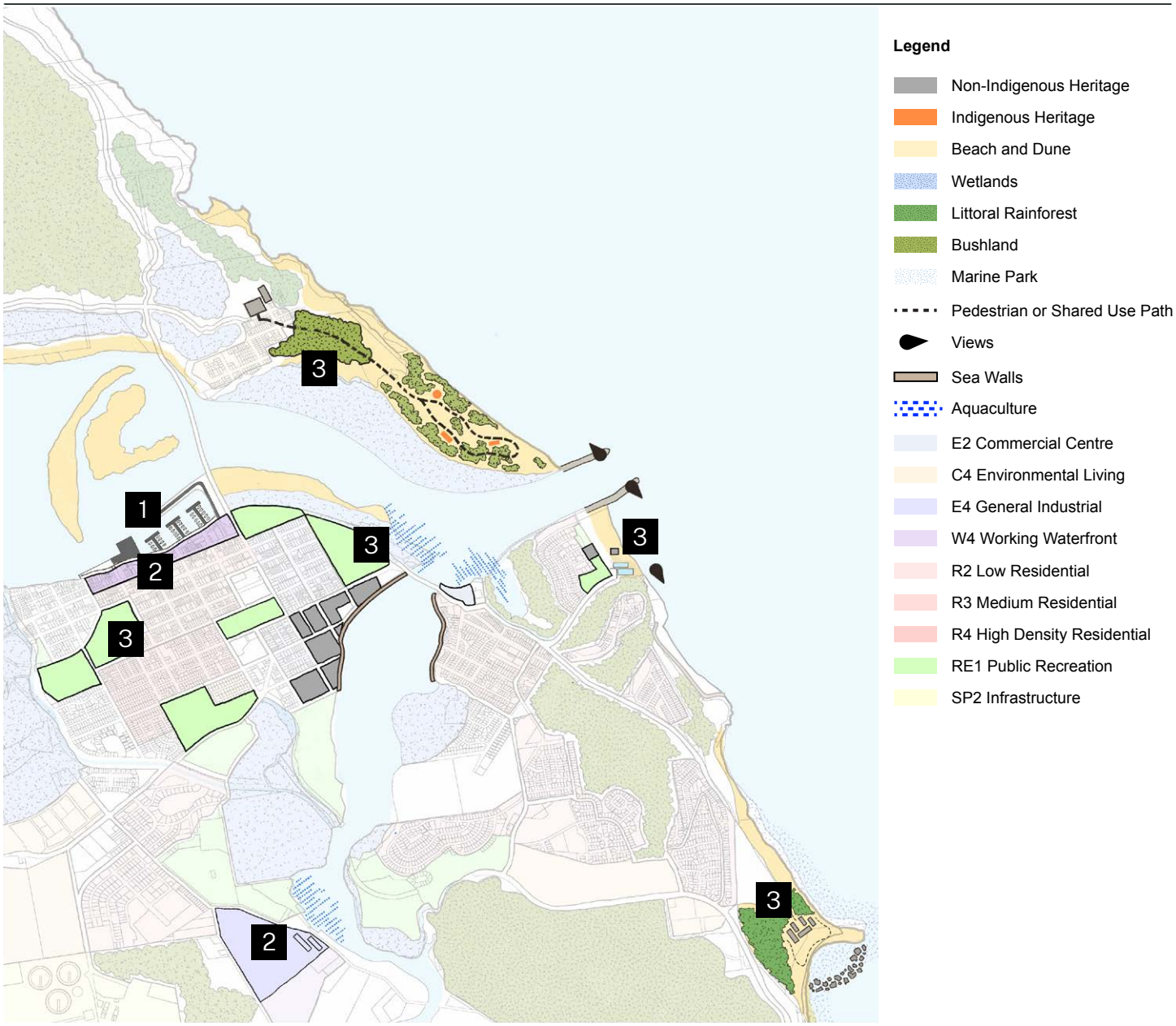
Requirements

a. Do not allow development that is likely to significantly reduce connectivity of existing green infrastructure.

b. Provide for diverse green infrastructure that can support the changing needs of current and future communities, and provide tourism and recreational opportunities.

Guided kayak tour on the Towamba River – Bega Valley LGA / Yuin-Monaro Country (Photography: Destination NSW)

Figure 6. Desirable practices for Outcome D



1 Essential facilities such as access ramps and jetties are protected and enhanced for sustainable coastal industries needing waterfront access (D.1(b)).

2 Development types support or complement sustainable coastal industries needing waterfront access, and/or recreational uses (D.1(a)).

3 Diverse green infrastructure is well-located, can accommodate the changing needs of current and future communities and provide tourism and recreational opportunities, such as festivals, markets and other events (D.2(b)).

E. Respond to coastal hazards

Figure 7 illustrates desirable practices for this outcome.

Outcome E.1 Respond to coastal processes

Land uses and development account for coastal processes, including the inherently ambulatory and dynamic nature of the shoreline.

Sources: Coastal Management Act s3(f), s3(g), s3(i) and s7; Resilience and Hazards SEPP s2.9(b), s2.10(1)(b) and s2.12.

Requirements

a. Planning proposals that affect land within a coastal hazard and risk area must not alter coastal processes in a way that harms the natural environment or other land.

b. Exclude development in areas affected by a current or projected future coastal hazard that is likely to increase the risk of coastal hazards on that land or other land.

c. Locate or consolidate development in areas with little or no exposure to current and projected future coastal hazards, to ensure public safety and prevent risks to life.

d. Do not increase development potential or intensify land uses in a coastal hazard or risk area.

Outcome E.2 Account for natural hazard risks

Understand and address the interaction between coastal hazard and other natural hazard risks that may affect development.

Sources: Coastal Management Act s3(f); Local Planning Directions 4.2(2) (Coastal Management), 4.1 (Flooding) and 4.3 (Planning for Bushfire Protection).

Requirements

a. Identify areas on and near the proposal that are affected by current or projected future coastal hazards. Ensure that the proposal is compatible with any identified threat or risk.

b. Account for potential interaction between coastal hazards and other current and future natural hazards. This includes flooding, bushfires, landslip, heatwaves, severe storms, east coast lows and cyclones. Refer to the *Strategic Guide to Planning for Natural Hazards*.

c. Manage natural hazard risk within the development site. Avoid using public space or adjoining land to lessen risk.

Outcome E.3 Account for climate change

Consider current and future conditions when planning for development.

Sources: Coastal Management Act s3(f), s3(g) and s7; Coastal Management Manual.

Requirements

a. Demonstrate that the proposal applies a 100-year planning horizon for the full range of climate change projections for coastal hazards. This approach recognises that sea level is projected to continue to rise for centuries because of climate change.

b. Consider how climate change could affect the risk profile of existing natural hazards and create new vulnerabilities and exposure for the proposal in the future.

Outcome E.4 Provide sustainable defences to coastal hazards

Ensure actions to reduce exposure to coastal hazards are proportionate, sustainable and appropriate.

Source: Coastal Management Act s7(2)(f), s7(2)(g) and s27.

Requirements

a. Reduce exposure to coastal hazards by protecting, restoring or improving natural defences. This includes coastal dunes, vegetation, coastal floodplains and coastal wetlands, where suitable.

b. If natural defences are not possible, reduce exposure to coastal hazards without significantly degrading:
   - biological diversity and ecosystem integrity
   - ecological, biophysical, geological and geomorphological coastal processes
   - beach and foreshore amenity, or the social and cultural value of these areas
   - public safety and access to, or use of, beaches or headlands.

Outcome E.5 Protect essential infrastructure

Locate essential infrastructure in a way that reduces vulnerability to coastal hazards.

Source: Coastal Management Act s3(c), s3(f), s3(i), s3(h), s7(2)(e) and s7(2)(h).

Requirements

a. Locate and design essential infrastructure to reduce vulnerability to current and projected future coastal hazards. Consider the effects of climate change over at least a 100-year planning horizon.

b. Where exposure to coastal hazards cannot be avoided, prepare adaptation plans for essential service infrastructure. These plans should be consistent with any applicable coastal management program.

c. Consult local Aboriginal land management experts and emergency management agencies on how to strategically locate access routes and other essential infrastructure.

Outcome E.6 Change land uses to manage legacy issues and avoid creating new ones

Consider the projected future effects of coastal hazards, including shoreline recession and inundation associated with projected sea level rise.

Source: Coastal Management Act s3(c), s3(e), s3(f), s3(g), s3(k), s7(2)(e) and s7(2)(h).

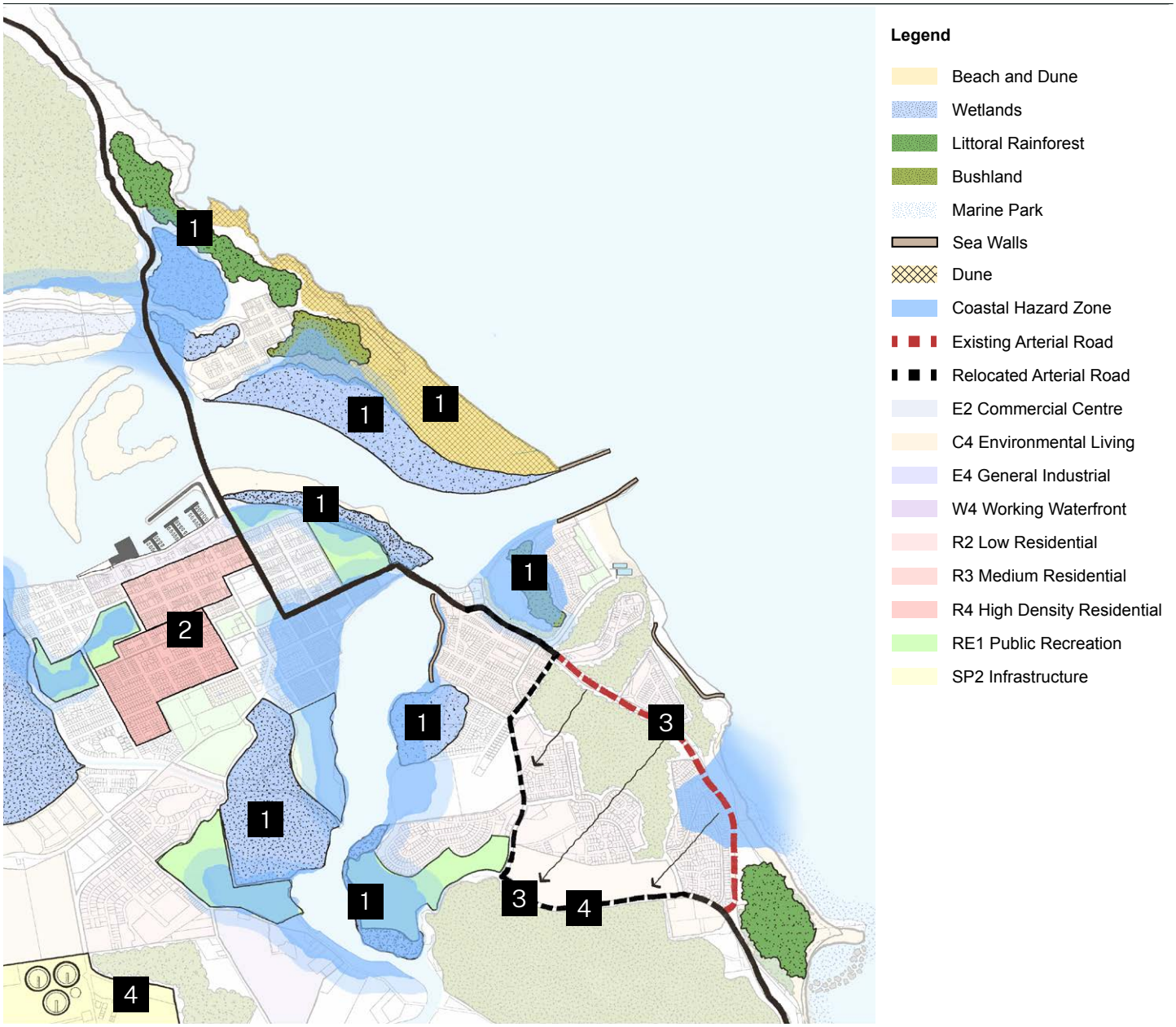
Requirements

a. Ensure the proposal will not require coastal management interventions to remain viable over its expected lifespan.

b. Consider the potential legacy effects of the proposal and if the proposed land uses or development will create a social, environmental, economic or cultural burden for future generations.

c. Consider if the proposed change of land use could remove redundant legacy infrastructure or reduce existing legacy effects.

Figure 7. Desirable practices for Outcome E



1 Exposure to coastal hazards in these areas is reduced by protecting, restoring or enhancing natural defences, including coastal dunes, vegetation, coastal floodplains and coastal wetlands (E.4(a)).

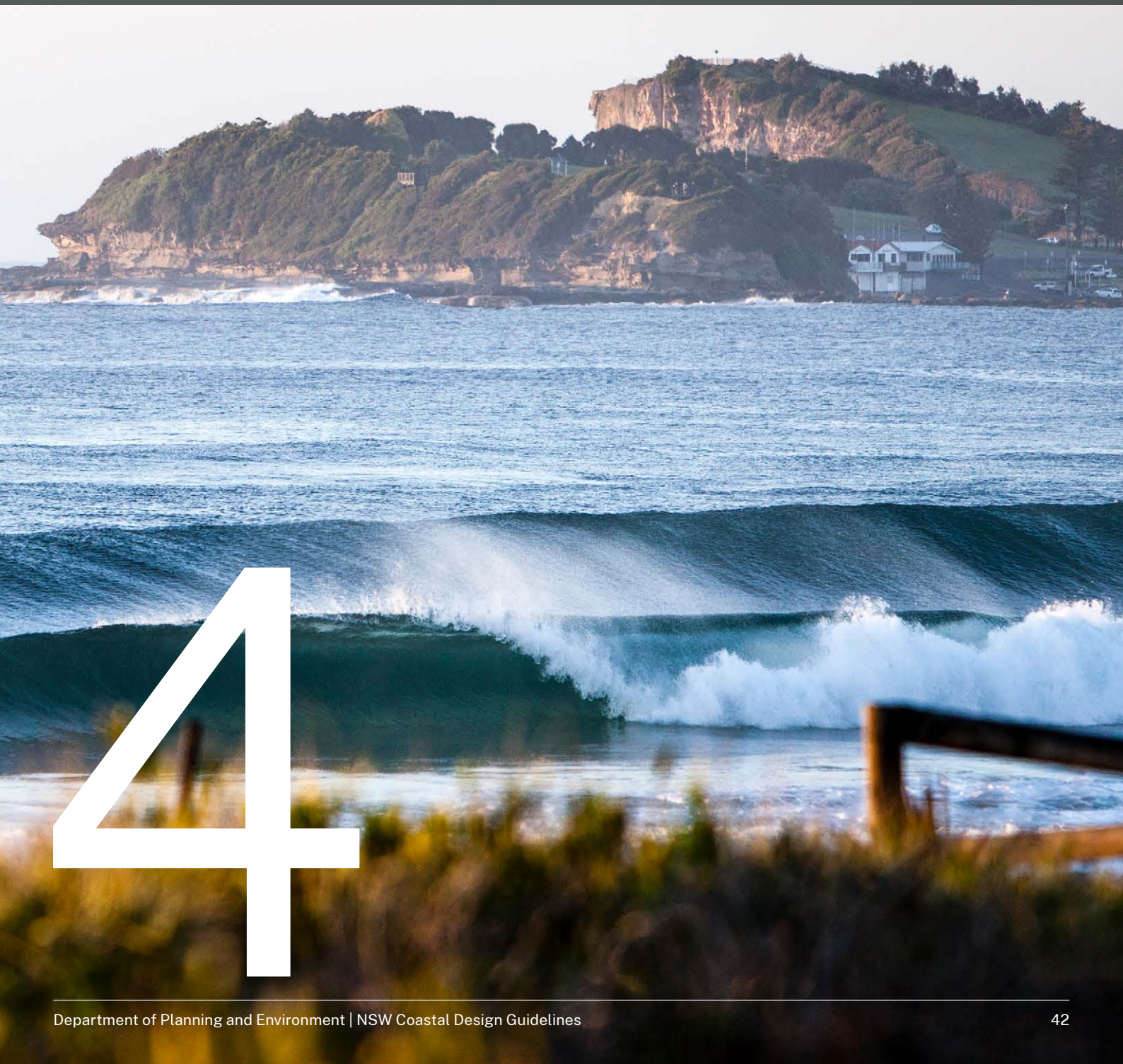
2 Medium-and high-density residential development is located away from areas most exposed to coastal hazards (E.1(c)).

3 An adaption plan to relocate the primary access road reduces exposure to future coastal hazards (E.5(a), E.5(b)).

4 Infrastructure is located away from coastal hazard and risk areas (E.5(a)).

Chapter 4
Urban design guidance for the coastal zone

Photography: Destination NSW



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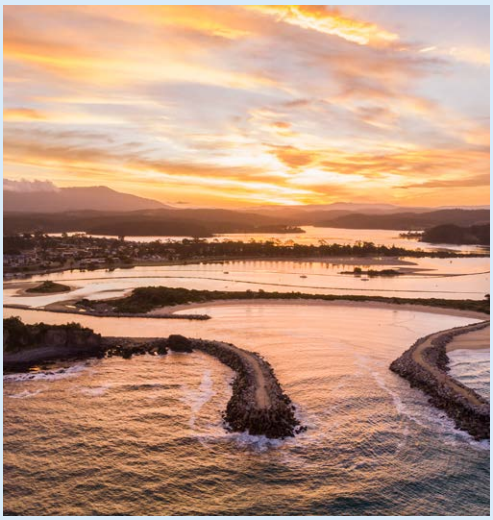


Sun setting over Wagonga Inlet, Narooma – Eurobodalla LGA / Yuin Country (Photography: Destination NSW)

Boats moored at Ulladulla – Shoalhaven LGA / Yuin Country

4.1 Overview

The guidance in this chapter provides the foundation for best-practice urban design proposals for any NSW coastal place.

This guidance goes beyond that relevant to planning proposals, which focus on a high-level assessment of constraints and opportunities rather than detailed design. However, many of the objectives for planning proposals outlined in section 3.2 of these guidelines remain relevant to more detailed design considerations.

Because this guidance addresses urban design, consistency with this chapter is not mandatory for planning proposals in the coastal zone. However, we strongly encourage designers to use this guidance to inform projects such as:

- regional plans
- local strategic planning statements
- place strategies and precinct plans
- master plans
- local planning controls
- business cases
- development applications including coastal subdivisions.

This chapter includes design guidance relevant to each of the factors detailed in section 2.2 of these guidelines. The guidance is set out in a series of design objectives. Design that applies these objectives will align with best-practice urban design in the coastal zone. Each objective is accompanied by a list of suggested design strategies for achieving it. These strategies are not exhaustive or applicable under all circumstances, but are a starting point for design ideas.

This guidance complements other existing NSW Government publications. *Urban Design for Regional NSW* gives detailed guidance on matters relevant to regional areas, such as revitalising town centres, as well as more guidance on best-practice urban design processes. The *Apartment Design Guide* gives guidance for the design of multi-storey residential apartments in NSW.

Use the Coastal Design Guidelines in conjunction with the *Urban Design Guide for Regional NSW* and the *Apartment Design Guide*. They give design objectives and strategies that are specific to coastal areas in NSW.

Assessing design

The checklist in **Appendix 2** will help you assess if a design meets the objectives in this chapter. Designers can self-assess their project using this checklist to determine how closely their design aligns with these guidelines. Assessment authorities can also use the checklist to guide their consideration of a project.

4.2 Design guidance for the natural environment

4.2.1 Base considerations on a hierarchy of landform, then landscape, then built form

Figure 8 illustrates strategies for achieving this objective.

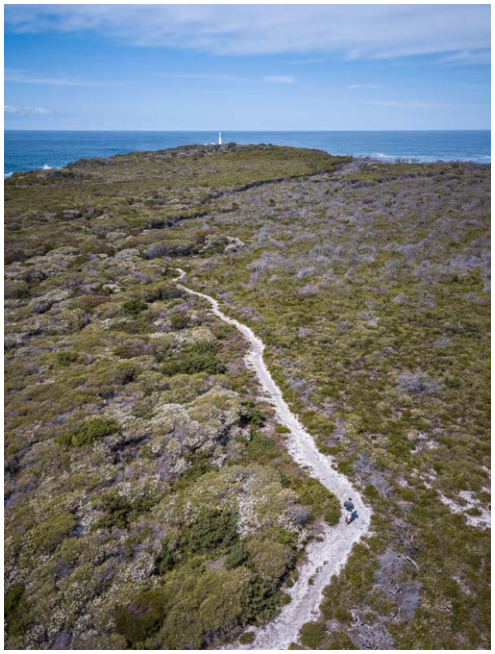
a. Site and orientate structures to reinforce natural coastal landform.

b. Account for dynamic coastal processes and the changing nature of the landform under projected climate change scenarios and effects.

c. Integrate public spaces and infrastructure with coastal landforms and systems.

d. Create block and lot patterns responsive to topography, water flow, natural coastal assets and cultural landscapes.

e. Maintain the ecological integrity of the foreshore and headlands, and retain public views of these coastal landscapes. Prioritise this over creating views and outlooks from private properties.



Beowa National Park Green Cape – Bega Valley LGA / Yuin-Monaro Country (Photography: Destination NSW)

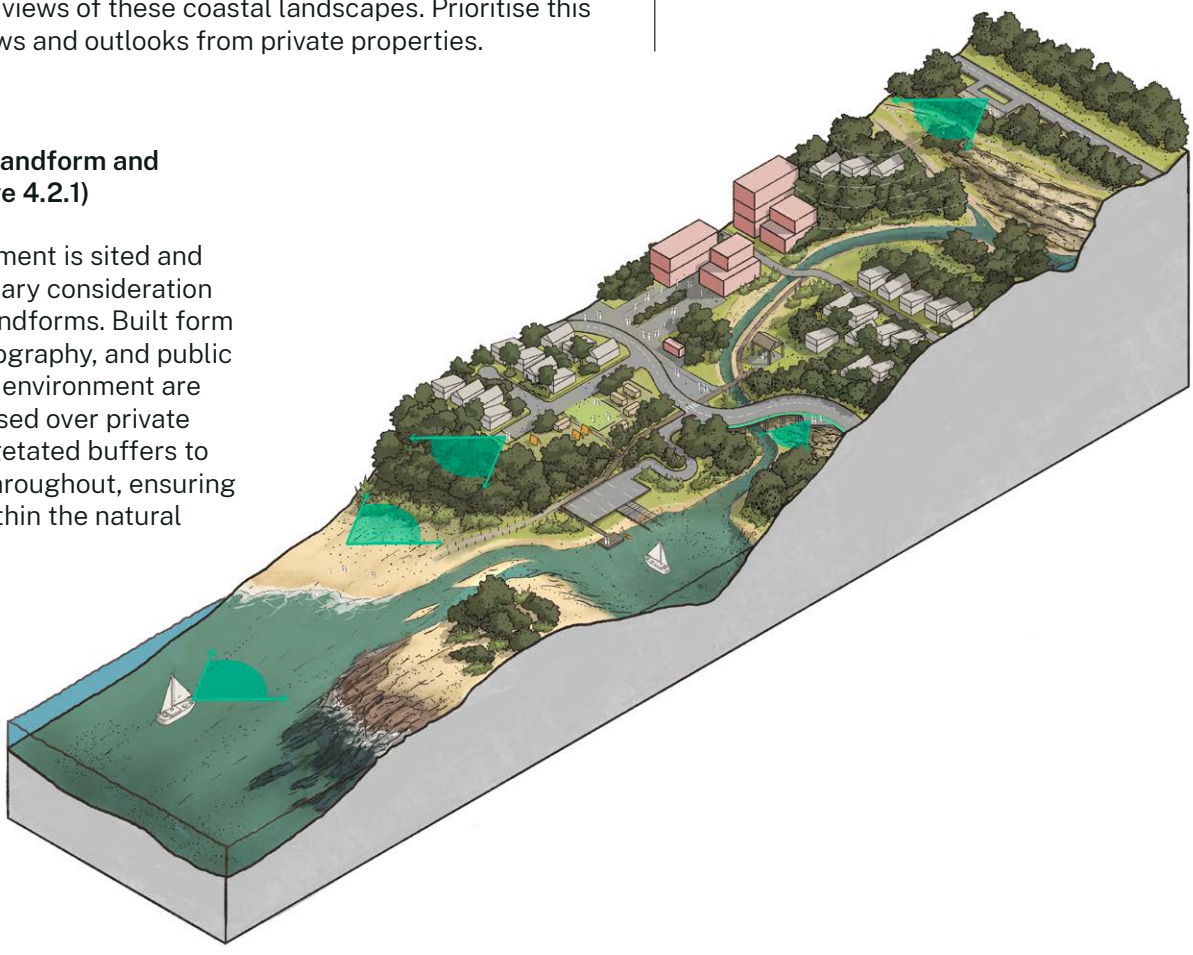


Figure 8. Prioritise landform and landscape (Objective 4.2.1)

In Figure 8, development is sited and orientated with primary consideration to natural coastal landforms. Built form responds to the topography, and public views to the coastal environment are retained and prioritised over private views. There are vegetated buffers to the foreshore and throughout, ensuring development fits within the natural landscape.

4.2.2 Protect and enhance water quality, hydrological systems and coastal processes

a. Support and incorporate water-sensitive urban design approaches.

b. Identify and protect sensitive downstream environments such as marine parks, aquatic reserves, coastal wetlands, coastal lakes and national parks from adverse effects on water quality and quantity, and hydrological flows.

c. Consider opportunities to re-naturalise and engineer hydrology, hydraulics and flow regimes to support natural coastal and floodplain processes (for example, floodplain inundation, saltmarsh inundation, longshore drift).

d. Remediate or remove legacy infrastructure that may be harming coastal environments and waterways.

4.2.3 Identify, protect and enhance sensitive coastal ecosystems and threatened ecological communities

Figure 9 illustrates strategies for achieving this objective.

a. Minimise disturbance to sensitive coastal ecosystems by grouping structures and providing common access points (such as walkways). Avoid vehicular access within sensitive coastal ecosystems.

b. Avoid and minimise effects on areas of high biodiversity value.

c. Restore, protect and improve sensitive coastal ecosystems – such as intertidal foreshores, coastal wetlands, littoral rainforests and riparian habitats – and increase connectivity between remnant areas where possible.

d. Restore the natural characteristics of foreshore areas wherever possible.

e. Provide vegetated setbacks to protect coastal ecosystems.

f. Identify and plan for landward migration pathways for coastal wetlands to respond to climate change.

g. Consider connectivity between the land and waterways holistically, including the effects of the development on ecological connectivity and ecosystem functions.

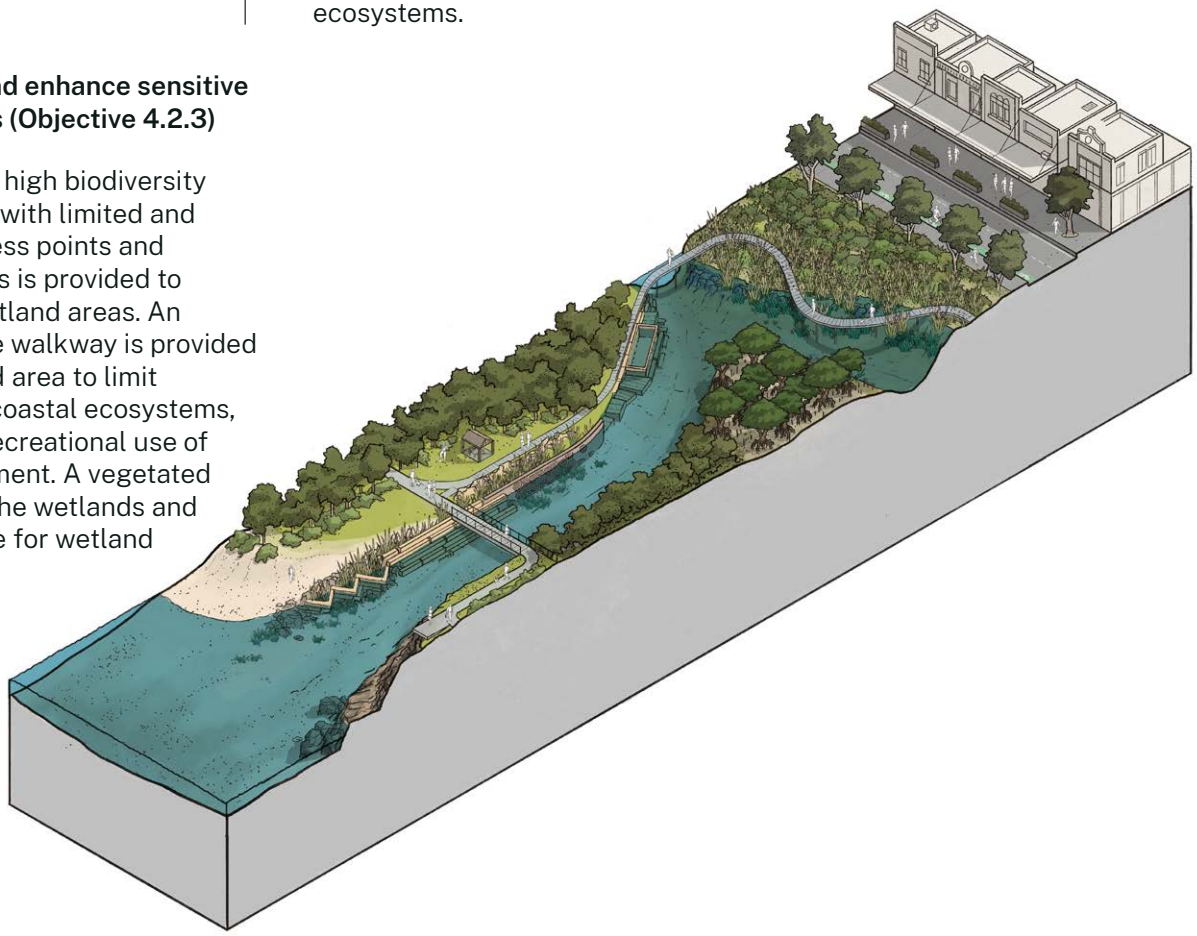
h. Adopt lighting design that reduces light pollution to minimise effects on wildlife – refer to the *National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds.*

i. Adopt acoustic design that minimises effects of construction and operational noise on wildlife.

j. Naturalise drainage patterns and channels to manage overland flow, increase civic amenity, improve ecological connectivity and restore ecosystems.

Figure 9. Protect and enhance sensitive coastal ecosystems (Objective 4.2.3)

In Figure 9, areas of high biodiversity value are protected with limited and clearly defined access points and pathways. No access is provided to certain sensitive wetland areas. An elevated, permeable walkway is provided through the wetland area to limit adverse effects on coastal ecosystems, while allowing for recreational use of the coastal environment. A vegetated setback separates the wetlands and road, allowing space for wetland migration.



4.2.4 Ensure that the natural coastal environment is integrated into built coastal environments

a. Maintain the presence of beaches, dune systems, undeveloped headlands and other natural features of foreshores.

b. Encourage filtered views throughout the built environment to reinforce the presence of coastal landforms.

c. Use landscaping and planting of locally endemic species to connect habitat, water systems and settlements.

d. Use planting of locally endemic species and landscape design to screen built structures that may be viewed from the foreshore or coastal waterways.

e. Mitigate urban heat island and climate change effects in built coastal environments by preserving and expanding tree canopy cover, riparian vegetation, wildlife corridors and habitat.

4.2.5 Use nature-based solutions as the first option to address environmental challenges, avoiding hard engineering solutions where possible

Figure 10 illustrates strategies for achieving this objective.

a. Naturalise riparian corridors to support coastal processes and mitigate the effect of weather events, including on coastal floodplains.

b. Site infrastructure and structures (for example, foreshore facilities) to minimise environmental impact and enable natural tidal flows, propagation of marine life and longshore drift.

c. Encourage locally endemic planting and control weeds to promote and restore the functions and resilience of coastal dune systems.

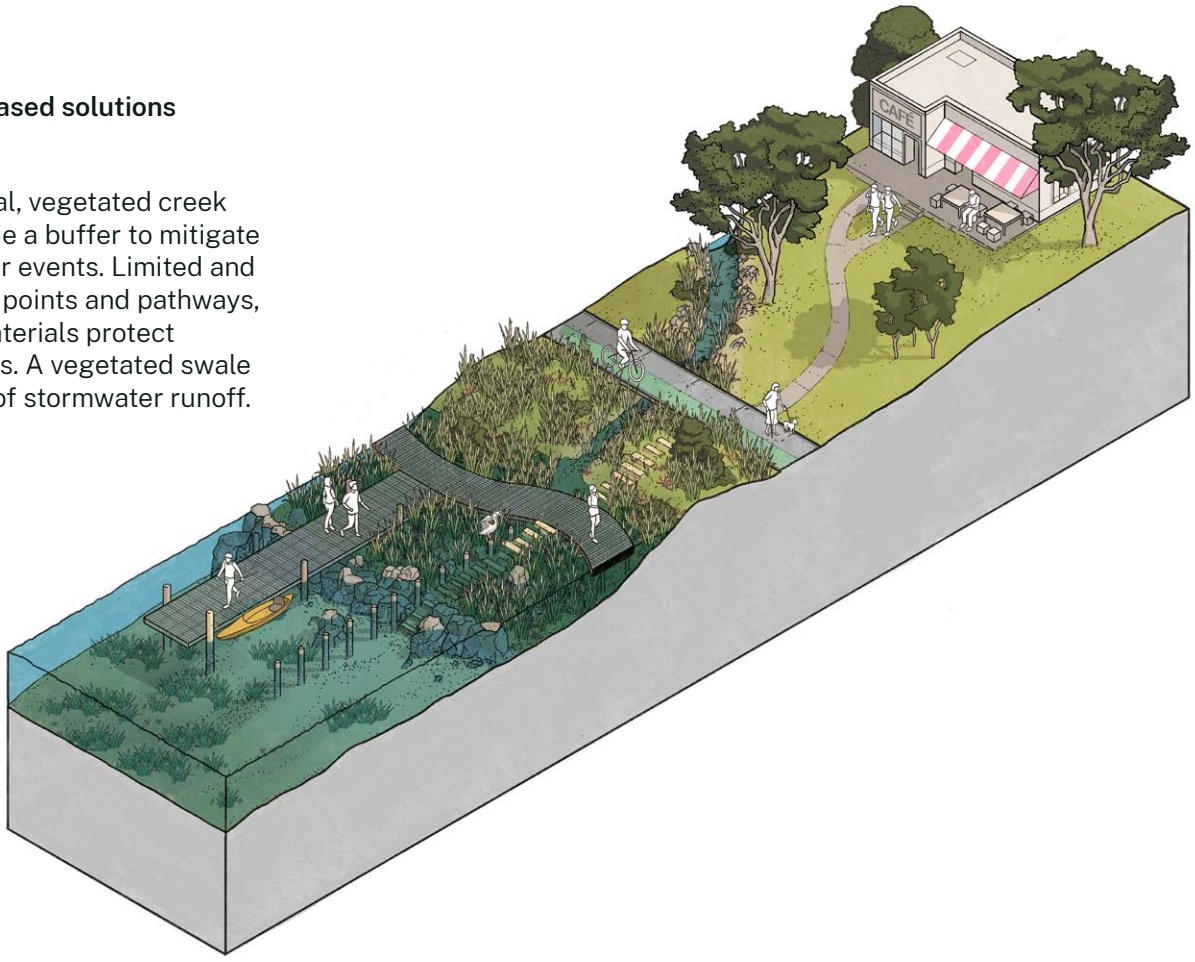
d. Improve the capacity of soils to absorb and filter water (for example, encourage vegetated swales and pervious surfaces).

e. Avoid reclaiming land or constructing hard barriers. Instead, create re-naturalised zones to allow adaptation to coastal processes.

f. When natural solutions are not possible, consider using techniques to reduce the environmental effect of engineering solutions, such as those described in the *Environmentally Friendly Seawall Guideline.*

Figure 10. Nature-based solutions (Objective 4.2.5)

In Figure 10, a natural, vegetated creek and shoreline provide a buffer to mitigate the effect of weather events. Limited and well defined access points and pathways, using permeable materials protect sensitive ecosystems. A vegetated swale allows for filtration of stormwater runoff.



4.3 Design guidance for the built environment

4.3.1 Use built form to reinforce the beauty and character of coastal places

Figures 11 and 12 illustrate strategies for achieving this objective.

a. Use building type, scale, height and aspect to ensure development integrates with, and does not dominate, coastal landforms and other elements of the coastal environment (for example, keep building mass below tree canopy and ridge lines).

b. Orient streets and structures towards significant features of the coast and to capture sea breezes for passive cooling.

c. Protect and enhance view corridors to and from the foreshore, water bodies and natural features.

d. Locate and design development to limit the visual intrusion of buildings when viewed from public spaces, and the overshadowing of beaches, foreshores and the public domain before 4 pm (midwinter) and 7 pm (Eastern Daylight Saving Time).

e. Create built form that responds to, connects with and celebrates the cultural heritage of coastal Aboriginal peoples.

f. Use materials that are resilient, sustainable and that weather well in coastal environments.

g. Respond to the natural form of coastal landscapes and minimise cut and fill wherever possible.

h. Avoid materials that are highly reflective. Use materials, finishes and colours that complement the coastal landscape.

i. Provide green infrastructure to meet local needs for green space and tree canopy, in keeping with the principles of the *Greener Places Design Guide.*

Figure 11. Built form reinforces the beauty and character of coastal places (Objective 4.3.1)

In Figure 11, to reinforce the natural beauty of the coastal area, the built form follows the topography, with lower heights nearer to the foreshore and building mass kept below tree canopy lines. Structures are oriented to capture sea breezes for passive cooling. Viewlines towards the beach are retained from key public vantage points. Vegetation screening ensures buildings are not visible from the beach.

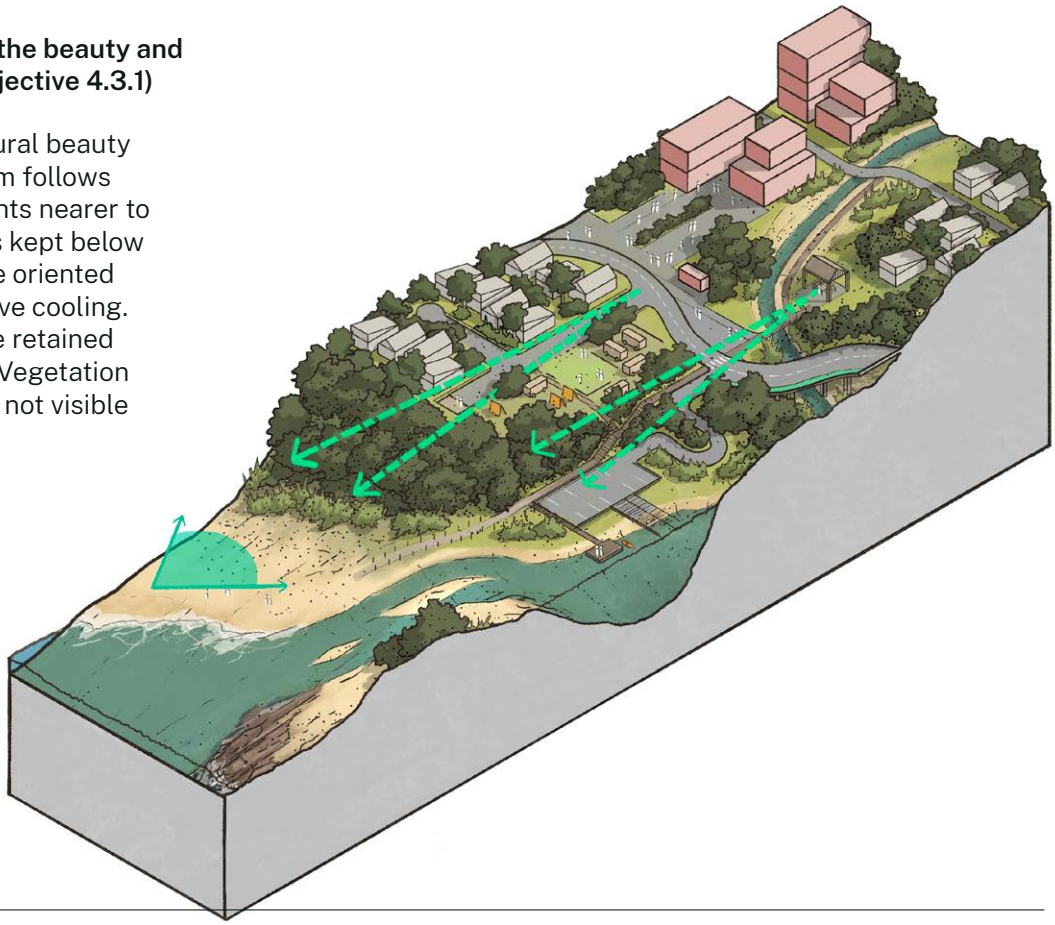
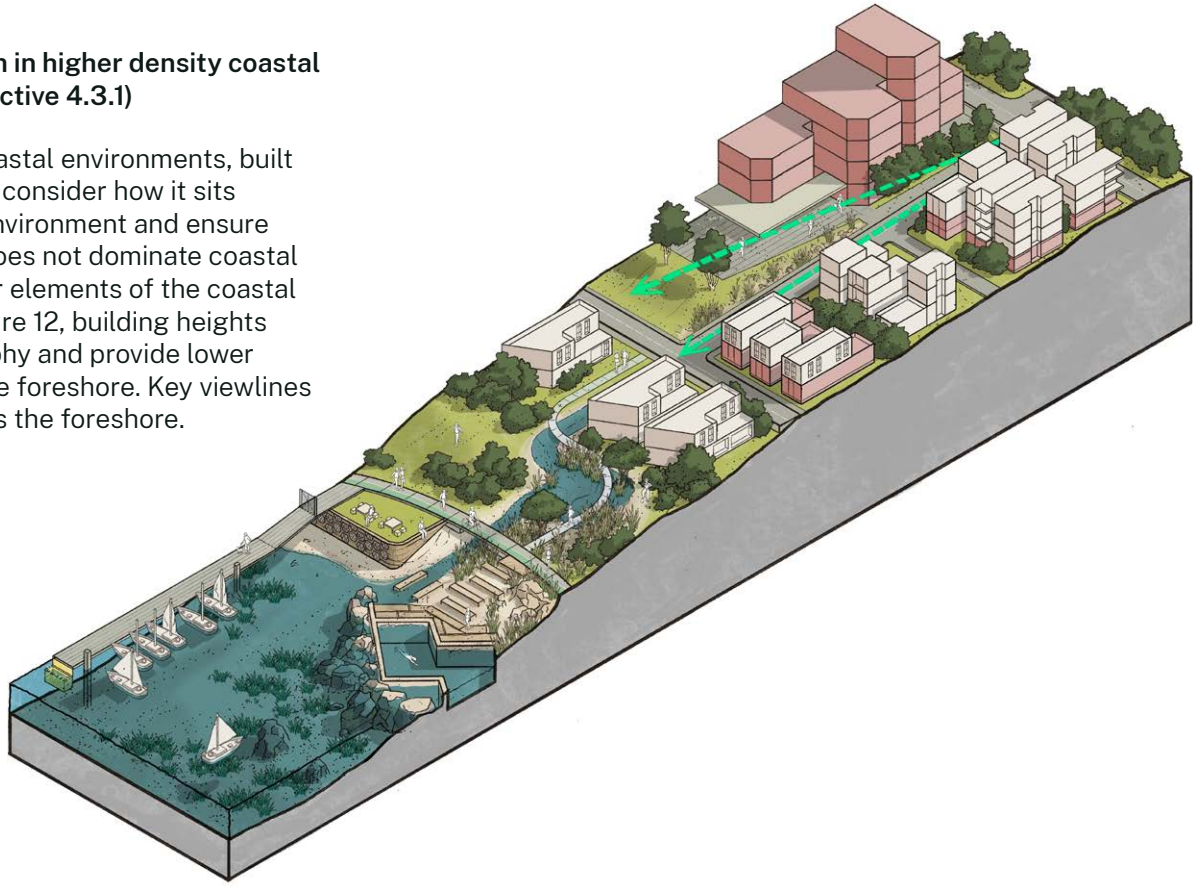


Figure 12. Built form in higher density coastal environments (Objective 4.3.1)

In higher density coastal environments, built form must carefully consider how it sits within the natural environment and ensure that development does not dominate coastal landforms and other elements of the coastal environment. In Figure 12, building heights reflect the topography and provide lower heights nearer to the foreshore. Key viewlines are retained towards the foreshore.



4.3.2 Ensure connectivity through and between coastal places

Figure 13 illustrates strategies for achieving this objective.

a. Create continuous coastal connectivity (for example, by using natural pathways and boardwalks).

b. Ensure local connectivity networks link transport nodes, settlement centres and significant coastal features.

c. Design walkable access ways and road networks in response to significant coastal landforms and foreshore areas.

d. Use open spaces to link significant natural, cultural and heritage features (for example, coastal walks, songlines, heritage trails).

Figure 13. Embedding Aboriginal cultural narratives into settlement layout (Objective 4.3.2)

With the consent of the Traditional Custodians of the area, the settlement in **Figure 13** has been designed to celebrate Aboriginal heritage. The layout ensures connectivity along a songline, connecting native produce to local markets and providing clear public access to a culturally significant site.

4.3.3 Ensure civic amenity and appropriate access to the coastal environment

Figures 14 and 15 illustrate strategies for achieving this objective.

a. Prioritise walking (including all forms of equitable access), cycling and public transport over movement and parking for private vehicles along coastal foreshores.

b. Provide clear and limited entry points to coastal environments to protect coastal vegetation, sensitive coastal ecosystems and important habitat, such as for migratory species.

c. Restrict vehicular entries and encourage non-vehicular access to, and within, the coastal environment.

d. Minimise and elevate roads, crossings and walkways over waterways and water bodies.

e. In high-use areas such as foreshores, if space allows, create distinct pedestrian walks and cycle paths, separated from busy roads. In areas with more limited space, separate roads from combined pedestrian and cycle paths.

f. Protect the character of town centre and foreshore access roads by ensuring development fronting onto these roads is consistent with the existing or desired local character.

g. Where vehicular traffic ends, ensure pedestrian and cycle movement can continue to provide access to the coastal environment.

h. With permission and guidance from local Traditional Custodians, protect sacred and significant areas through siting and consolidating access points appropriately.

Figure 14. Appropriate access to the coastal environment (Objective 4.3.3)

In Figure 14, there are limited and well-defined entry points to the coastal environment to provide amenity yet protect coastal vegetation. Walking and cycling are prioritised. Access is limited to a site of Aboriginal heritage significance behind the dune, with a viewpoint provided with permission from Traditional Owners.

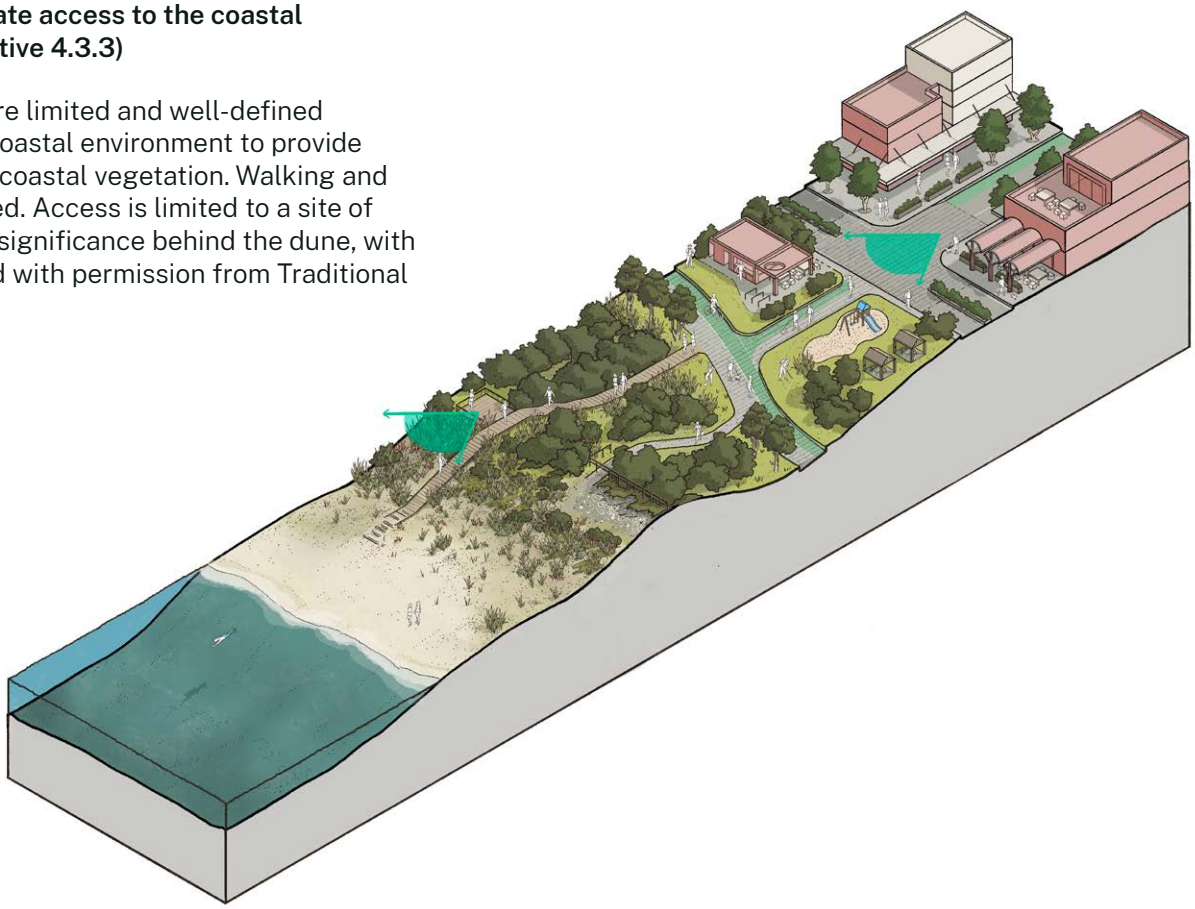
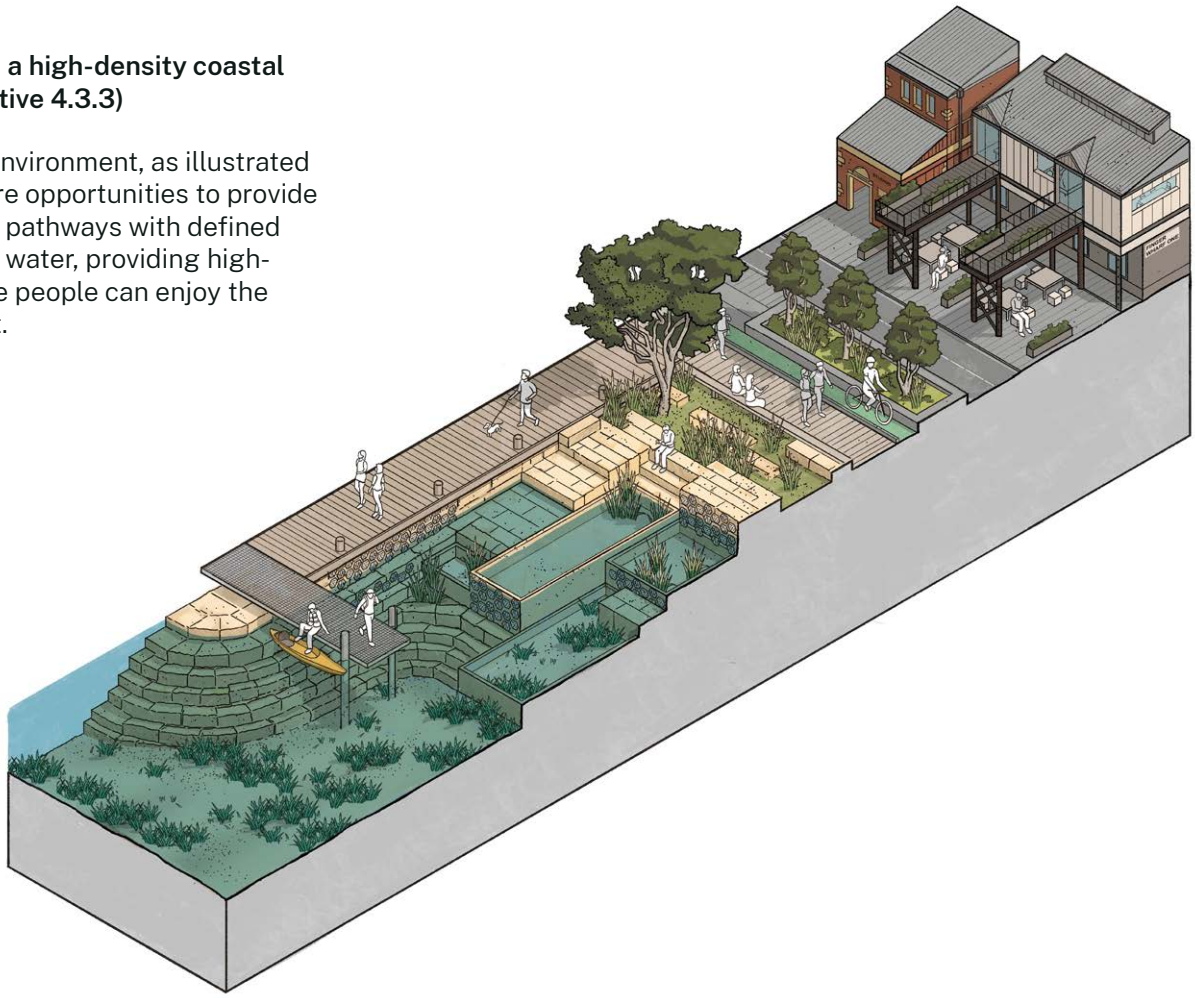


Figure 15. Access in a high-density coastal environment (Objective 4.3.3)

In a higher density environment, as illustrated in Figure 15, there are opportunities to provide separate pedestrian pathways with defined access points to the water, providing high-amenity areas where people can enjoy the coastal environment.



4.3.4 Create spatial frameworks that are resilient to coastal hazards

a. Locate development, essential services and infrastructure away from coastal hazard and risk areas wherever possible.

b. Accommodation, services and facilities for vulnerable communities must be located landward of coastal hazard and risk areas.

c. Ensure that the location and design of development reduces exposure to risks from coastal hazards over the life of the development.

d. Ensure service and infrastructure design considers risk to life, evacuation of public property and safety from coastal hazards, without relying on emergency responses, particularly during periods of peak demand.

e. If development to reduce exposure to coastal hazards will increase erosion of the beach and/or adjacent land, provide for the restoration of the beach and/or adjacent land.

f. Allow for temporary, seasonal and low-impact uses in coastal hazard and risk areas, maintaining the land in public ownership.

g. Prioritise actions that support the continued functionality of essential infrastructure during and immediately after a coastal hazard emergency.

4.3.5 If the proposal will locate structures in areas affected by coastal and other natural hazards, ensure that they can be adapted, relocated and transformed

a. Locate development appropriately in relation to projected hazard timelines. Refer to applicable coastal management programs, policies and hazard studies adopted by council.

b. Development must not increase the risk or effect of coastal hazards, either by intensifying land use or by altering coastal processes in a way that harms the natural environment or other land.

c. In areas at immediate or short-term risk of coastal hazard impact, retrofit, upgrade, relocate or remove structures to protect life and property, and to improve resilience to climate change.

d. Encourage design of buildings and structures that are modular, detachable and relocatable.

e. In coastal hazard and risk areas, ensure that buildings, structures and works are engineered to withstand or accommodate coastal hazards for their design life.

f. Ensure that infrastructure design and construction use appropriate climate-resilient materials and treatments, such as those described in the *Institute of Public Works Engineering Australia Practice Notes 12.1* and *12.2* (as modified from time to time).

Enjoying a morning surf at Angourie Point Beach – Clarence Valley LGA / Yaegl Country
(Photography: Destination NSW)

4.4 Design guidance for the social and economic context

4.4.1 Encourage sustainable, productive use of the natural coastal environment

Figure 16 illustrates strategies for achieving this objective.

a. Maintain and improve, where possible, sustainable access for recreational and commercial fishing, including boat maintenance facilities.
b. Support adaptive re-use of redundant maritime or industrial infrastructure.
c. Support the changing demographics and economics of coastal areas by providing diverse commercial and retail spaces.
d. Provide tourism and education opportunities associated with iconic local industries, such as aquaculture.
e. Incorporate local environmental and cultural skills into built outcomes (for example, murals by local artists or a living breakwater propagated with oysters from local farmers).
f. Deliver social infrastructure (such as public toilets and litter bins) to support the sustainable use of and visitation to natural assets.
g. Provide all-weather access to amenities such as boat ramps, watercraft storage racks, showers and changing facilities to promote year-round visitation.
h. Use environmental remediation as a local attraction – for example, by providing boardwalks across remediated land converted into coastal wetlands.

Figure 16. Revitalising redundant infrastructure to provide civic space and economic opportunity (Objective 4.4.1)

The pier in Figure 16 was formerly used for maritime industry, but has since become redundant. It has been revitalised as high-quality civic space, providing public access to foreshore areas and space for temporary businesses during peak periods.

4.4.2 Ensure coastal infrastructure delivers civic space and community assets

a. Maintain public ownership of foreshores and reserves.
b. Provide, improve and maintain coastal infrastructure to enable access (for example, upgrade paths along breakwaters and estuary foreshores to enable safe access for all).
c. Provide social amenity and educational engagement opportunities in re-naturalised coastal spaces (for example, engineered benched seating merging into natural rock platform or tidal pools for marine habitat).
d. Create high-quality urban amenity and recreational infrastructure (for example, showers and changing facilities, bicycle and surf craft racks, and seating along coastal walkways).
e. Provide management facilities to support and enable community stewardship of coastal places (for example, equipment storage for surf lifesaving, bushcare or community garden groups).
f. Promote adaptive reuse and integration of heritage items into development where appropriate.

Kiama Farmers Market – Kiama LGA / Tharawal Country (Photography: Destination NSW)

4.4.3 Acknowledge and protect coastal Aboriginal peoples' spiritual, social, cultural, customary and economic connection to coastal Country

a. Enable Traditional Custodians to carry out traditional Aboriginal land management practices within coastal land and sea Country.

b. With permission and guidance from Traditional Custodians, help protect coastal places with cultural significance for local Aboriginal communities (for example, scar trees, middens, tree groves, rock carvings, headlands and beaches).

c. Where appropriate, work with Traditional Custodians to identify and emphasise culturally significant coastal places in a way that celebrates and supports ongoing cultural connection and practice.

d. Where appropriate, introduce interpretive elements into the public realm to engage and educate the community about local Aboriginal culture and heritage values.

e. Ensure built form responds to Country and the Aboriginal cultural landscape.

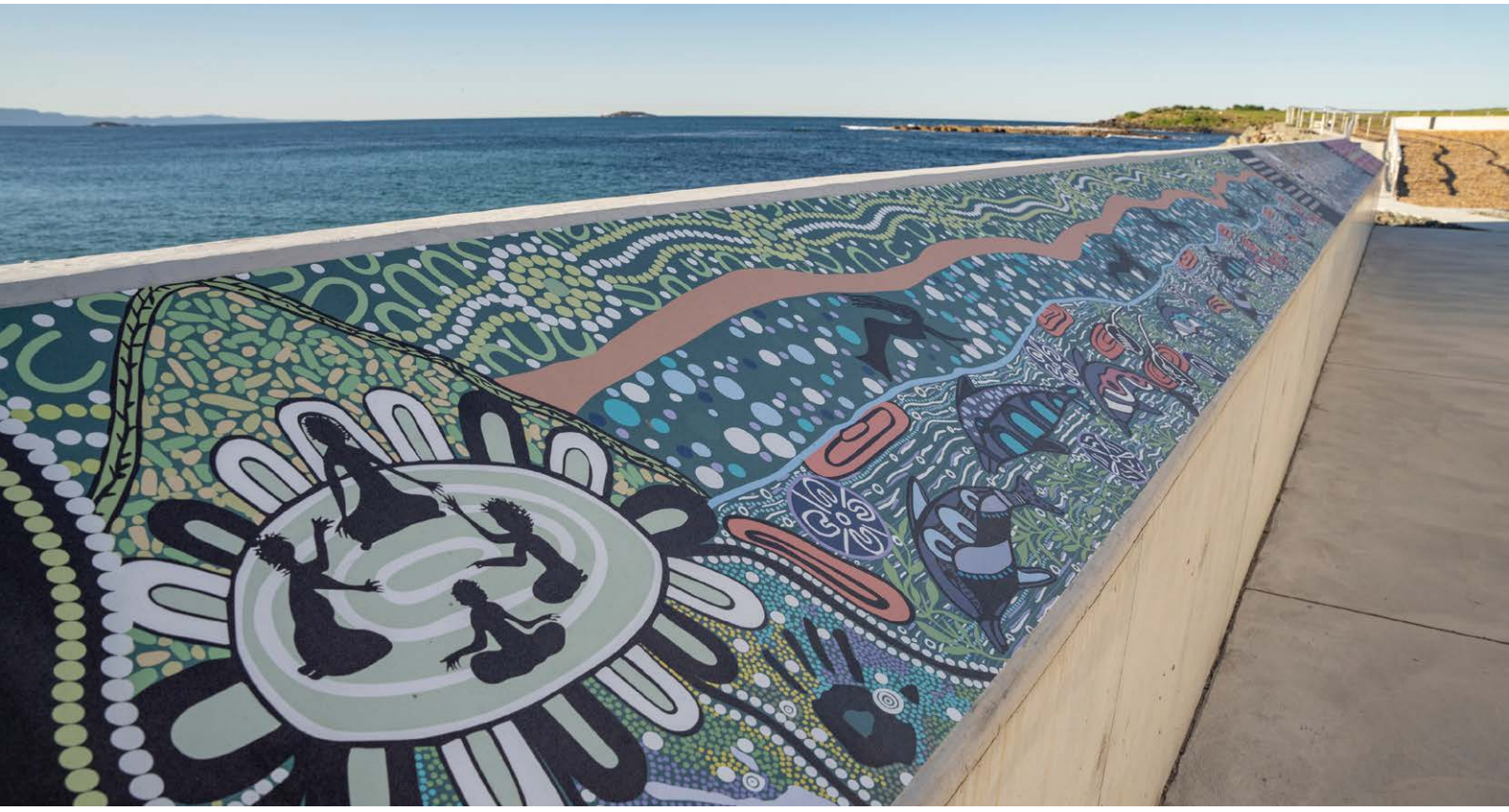
4.4.4 Support community adaptation to, and management of, current and future coastal hazards

a. Development in coastal hazard and risk areas must be consistent with any relevant certified coastal management program. Coastal management programs include adaptation strategies that consider a range of options – from hazard avoidance, accommodation and protection, to managed retreat and loss acceptance.

b. For existing structures within coastal hazard and risk areas and foreshore setback areas, develop plans for adaptive management that minimise the effect on natural and cultural values, as well as expense to the community (current and future).

c. Support greater public awareness, education and understanding of coastal processes and management actions.

d. Include community consultation in the design development process, establishing clear opportunities for continued engagement.



Port Kembla Sea Wall featuring a mural by Coomaditchie Artists – City of Wollongong LGA / Tharawal Country

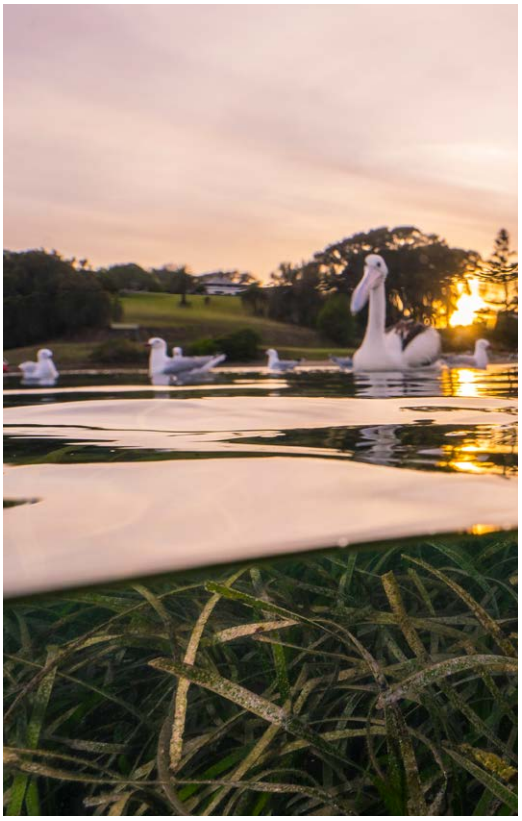
Resources

Culture and heritage

- The Burra Charter – the Australia ICOMOS Charter for Places of Cultural Significance, Australia International Council on Monuments and Sites (2013)
- Connecting with Country (PDF 11.1MB), Government Architect NSW (2023)
- Designing with Country (PDF 1MB), Government Architect NSW (2020)
- Design Guide for Heritage, Government Architect NSW (2019)
- Sea Country – an Indigenous perspective (PDF 1.24MB), National Oceans Office (2002)
- Aboriginal Heritage Information Management System, Heritage NSW
- Aboriginal Cultural Values: An Approach for Engaging with Country, Danièle Hromek for the Department of Planning, Industry and Environment (2020)
- Practice Note: Engaging with Aboriginal Communities (PDF 1.84MB), Department of Planning and Environment.

Environmentally sensitive design

- Greener Places, Government Architect NSW (2020)
- Blueprint for Living Cities: Policy to Practice (PDF 71.5MB), National Green Infrastructure Network (2017)
- Urban Green Cover in NSW – Technical Guidelines (PDF 1.49MB), Office of Environment and Heritage (2015)
- Water sensitive urban design guideline (PDF 6MB), Transport for NSW (2023)
- Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions, Office of Environment and Heritage and the NSW Environment Protection Authority (2017)
- Environmentally Friendly Seawalls – A Guide to Improving the Environmental Value of Seawalls and Seawall-lined Foreshores in Estuaries (PDF 1.81MB), Office of Environment and Heritage (2009)
- Coastal Dune Management – A Manual of Coastal Dune Management and Rehabilitation Techniques (PDF 5.73MB), NSW Department of Land and Water Conservation (2001)
- Healthy Estuaries for Healthy Oysters – Guidelines (PDF 2.49MB), NSW Department of Primary Industries (2017)
- NSW Boat Ramp Facility Guidelines (PDF 5.12MB), NSW Roads and Maritime Services (2017)
- Queensland Urban Drainage Manual, Institute of Public Works Engineering Australasia, Queensland (2018)
- About Fish Friendly Marine Infrastructure, Fish Habitat Network (2019)
- National Light Pollution Guidelines for Wildlife – Including marine turtles, seabirds and migratory shorebirds (PDF 6.63MB), Department of the Environment and Energy and WA Department of Biodiversity, Conservation and Attractions (2023)



Pelicans and seagulls at dawn in Wagonga Inlet, Narooma – Eurobodalla LGA / Yuin Country (Photography: Destination NSW)

Woman enjoys a walk at Fingal Head Beach – Tweed LGA / Bundjalung Country (Photography: Destination NSW)

General urban design guidance

- Better Placed, Government Architect NSW (2017)
- Urban Design for Regional NSW (PDF 9.6MB), Government Architect NSW (2020)
- Apartment Design Guide (PDF 21MB), NSW Department of Planning, Industry and Environment (2015)
- Practitioner's Guide to Movement and Place (PDF 5.39MB), Government Architect NSW and Transport for NSW (2020)
- Evaluating Good Design, Government Architect NSW (2018)
- Place Analysis Advisory Note (PDF 613KB), Government Architect NSW (2019)
- Beyond the Pavement, NSW Roads and Maritime Services (2020)
- Siting and design guidelines for structures on Victorian coast, Department of Environment, Land, Water and Planning, VIC (2020)
- Guidelines for Landscape and Visual Impact Assessment, The Landscape Institute (2013)

Mapping and evaluation tools

- ePlanning Spatial Viewer, NSW Department of Customer Service (2020)
- Sharing and Enabling Environmental Data (SEED) Portal, NSW Government (2021)
- Biodiversity Assessment Method – Biodiversity Offsets Scheme, NSW Department of Planning, Industry and Environment (2020)
- Biodiversity Values Map and Threshold Tool, NSW Department of Planning and Environment (2020)
- Fisheries NSW Spatial Data Portal, NSW Department of Primary Industries (2020)
- NSW Flood Data Portal, NSW State Emergency Service and NSW Department of Planning, Industry and Environment (2021)
- Social and Economic Evaluation of NSW Aquaculture, University of Technology Sydney (2016)

Natural hazards

- NSW Coastal Management Manual, Office of Environment and Heritage (2018)
- Coastal Management Toolkit, Department of Planning and Environment (2022)
- Strategic Guide to Planning for Natural Hazards, Department of Planning, Industry and Environment (2021)
- Floodplain Development Manual and Flood Prone Land Policy, NSW Department of Infrastructure, Planning and Natural Resources (2005)
- Flood Risk Management Manual (PDF 1.3MB), NSW Department of Planning and Environment (2023)
- Flood Prone Land Package, Department of Planning, Industry and Environment (2021)
- Planning for Bush Fire Protection 2019 (PDF 9.73MB), NSW Rural Fire Service (2019)
- Planning approaches and instruments for Adaptation (PDF 1MB), CoastAdapt, National Climate Change Adaptation Research Facility (2018)
- Climate change adaptation planning for protection of coastal ecosystems (PDF 8.7MB), CoastAdapt, National Climate Change Adaptation Research Facility (2016)
- Practice Note 12.1: Climate Change Impacts on the Useful Life of Infrastructure, Institute of Public Works Engineering Australasia (2018)
- Practice Note 12.2: Climate Resilient Materials for Infrastructure Assets, Institute of Public Works Engineering Australasia (2021)
- Climate Change Adaptation Guidelines in Coastal Management and Planning (PDF 3.8MB), Engineers Australia (2012)
- Guidelines for Responding to the Effects of Climate Change in Coastal and Ocean Engineering, Engineers Australia (2017)
- Coastal Engineering Guidelines for working with the Australian coast in an ecologically sustainable way (PDF 4.4MB), Engineers Australia (2017)
- Australian Disaster Resilience Handbook Collection, Australian Institute for Disaster Resilience
- Climate Risk Ready NSW Guide (PDF 3.9MB), Department of Planning, Industry and Environment (2020)
- AdaptNSW website, AdaptNSW

Strategies, policies and plans

- Our Place on Country – Aboriginal Outcomes Strategy 2020-23 (PDF 7.87MB), Department of Planning and Environment (2020)
- Aboriginal Cultural Heritage Management Plan (PDF 13.9MB), Tweed Shire Council (2018)
- NSW Marine Estate Management Strategy 2018 – 2028 (PDF 12.6MB), Marine Estate Management Authority (2018)

Glossary

Accretion is the build-up of sediments to form land or shoaling in coastal waters or waterways. It may be natural (caused by natural processes) or artificial (resulting from built structures).

Active recreation is generally associated with the use of purpose built facilities including sporting fields, swimming pools, playgrounds and exercise equipment in an indoor or outdoor setting.

Active transport is human-powered. For example, walking or cycling.

Adaptive management can be adopted where there is uncertainty about future conditions. Adaptive management involves and ongoing process of monitoring, evaluation, review and implementation to improve management over time.

Acid sulfate soils are natural sediments that contain iron sulfides. When disturbed or exposed to air these soils can release acid, damaging built structures and harming or killing animals and plants. Local Environmental Plans contain maps of different classes of acid sulfate soil.

Beach is defined in the NSW *Coastal Management Act 2016* as an area that is composed of sand or pebbles or similar sediment that extends landwards from the lowest astronomical tide to the line of vegetation or bedrock or structure.

Coastal assets are natural features of the coastal zone, including landforms, ecosystems and species, and built assets such as infrastructure, public and private buildings or structures.

Coastal dunes are vegetated and unvegetated sand ridges built up at the back of a beach. They comprise dry beach sand that has been blown landward and trapped by plants or other obstructions.

Coastal environment area (CEA) is defined in the NSW *Coastal Management Act 2016* as the land identified by a State environmental planning policy to be the coastal environment area for the purposes of that Act, being land containing coastal features such as the coastal waters of the state, estuaries, coastal lakes, coastal lagoons and land adjoining those features, including headlands and rock platforms.

Coastal hazard is defined in the NSW *Coastal Management Act 2016* as beach erosion, shoreline recession, coastal lake or watercourse entrance instability, coastal inundation, coastal cliff or slope instability, tidal inundation, and erosion and inundation of foreshores caused by tidal waters and the action of waves, including the interaction of those waters with catchment floodwaters.

Coastal hazard and risk areas are any mapped coastal vulnerability areas and/or areas affected by (or projected to be affected by) coastal hazards that have been identified in a state environmental planning policy, local environmental plan, development control plan, coastal management program, coastal hazard policy or study adopted by council.

Coastal inundation happens when a combination of marine and atmospheric processes raises the water level at the coast above normal elevations, inundating land that is usually 'dry' with sea water. Alternatively, the elevated water level may result in wave run-up and overtopping of natural or built shoreline structures (for example, coastal dunes, seawalls).

Coastal lake or watercourse entrance instability is the variety of potential hazards and risks associated with the dynamic nature of both natural and trained entrances. Coastal lake and watercourse entrances are highly active environments; their shape constantly changes in response to processes such as alongshore sediment transport, tidal flows, storms and catchment flooding.

Coastal landform is the geological formation of the coastline and its unique features mostly through the processes of erosion and deposition. A significant coastal landform is one which has substantial cultural and natural heritage values, including, but not limited to, evidential value, historical value, aesthetic value, and communal value.

Coastal management area is any one of 4 areas that make up the coastal zone as defined in the *Coastal Management Act 2016*. These are the coastal wetlands and littoral rainforests area, coastal vulnerability area, coastal environment area, and the coastal use area.

Coastal processes are marine, physical, meteorological and biological activities that interact with the geology and sediments to produce a particular coastal system.

Coastal protection works are defined in the NSW *Coastal Management Act 2016* as beach nourishment and activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters, including (but not limited to) seawalls, revetments and groynes.

Coastal risk is a risk that relates to the likelihood and consequences of coastal hazards or threats affecting coastal values.

Coastal use area (CUA) is defined in the NSW *Coastal Management Act 2016* as the land identified by a State environmental planning policy to be the coastal use area for the purposes of that Act, being land adjacent to coastal waters, estuaries, coastal lakes and lagoons where development is or may be carried out (at present or in the future).

Coastal vulnerability area (CVA) is defined in the NSW *Coastal Management Act 2016* as the land identified by a State environmental planning policy to be the coastal vulnerability area for the purposes of that Act, being land subject to coastal hazards.

Coastal wetlands are areas that are inundated cyclically, intermittently or permanently with fresh, brackish or saline water and have soils, plants and animals in them that are adapted to, and depend on, moist conditions for at least part of their lifecycle. Coastal wetlands include marshes, mangroves, melaleuca forests, casuarina forests, sedgelands, brackish and freshwater swamps and wet meadows.

Coastal wetlands and littoral rainforest area (CWLRA) is defined in the NSW *Coastal Management Act 2016* as the land identified by a State environmental planning policy to be the coastal wetlands and littoral rainforests area for the purposes of that Act, being land that displays the hydrological and floristic characteristics of coastal wetlands or littoral rainforests and land adjoining those features.

Coastal zone is defined in the NSW *Coastal Management Act 2016* and Resilience and Hazards SEPP as the area of land comprised of the following coastal management areas: the coastal wetlands and littoral rainforest area, the coastal vulnerability area, the coastal environment area and the coastal use area.

Coastal landforms are the landforms along the coastline that are mostly formed by geological processes, such as past volcanic activity, erosion and sedimentation, waves and tides (including longshore and rip currents), climatic factors such as wind, rainfall and temperature. Coastal landforms include headlands, cliffs, bays, tombolos, spits, peninsulas, shoals, caves, coves, dunes and beaches.

Cultural landscapes are described by the World Heritage Committee as representing 'the combined works of nature and man', this refers to how the interaction between humans and their environment manifests over time, bounded by physical constraints and opportunities.

Cultural significance is defined by the Burra Charter as the aesthetic, historic, scientific, social, or spiritual value of a place for past, present, or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places, and related objects.

East coast low is an intense low-pressure system that occurs off the east coast of Australia, bringing storms, high waves and heavy rain. East coast lows usually happen in autumn and winter off NSW, southern Queensland and eastern Victoria.

Ecosystem integrity is the intactness, completeness and extent of natural functioning of an ecosystem.

Ecologically sustainable development is development involving the effective integration of social, economic and environmental considerations in decision-making processes. For the full definition, see section 6(2) of the *Protection of the Environment Administration Act 1991* (NSW).

Endangered ecological community is an ecological community listed in the NSW *Biodiversity Conservation Act 2016* as endangered. Examples include coastal saltmarsh, littoral rainforest and Themeda grasslands on headlands.

Erosion happens when the action of natural forces wears land away. On a beach, erosion is the carrying away of beach material by wave action, tidal currents, littoral currents, or by deflation.

Estuary is defined by the *Coastal Management Act 2016* (NSW) as any part of a river, lake, lagoon, or coastal creek whose level is periodically or intermittently affected by coastal tides, up to the highest astronomical tide.

Estuary inundation is flooding around the shoreline of an estuary or coastal lake, by a mixture of tidal water and catchment flood water.

Essential infrastructure is defined by the *Coastal Management Act 2016* (NSW) as infrastructure for electricity generation, transmission and distribution, telecommunications, rail, roads, gas, sewerage systems, water supply systems or stormwater management systems, airports, ports shipping and harbours.

Eutrophication is a process where an increase in nutrient levels in a body of water causes it to become deoxygenated.

Floodplain is a flat tract of land bordering a river, mainly in its lower reaches, and consisting of alluvium deposited by the river. In flood planning, the floodplain is the area of land that is subject to inundation by floods up to and including the probable maximum flood.

Foreshore is defined in the NSW *Coastal Management Act 2016* as the area of land between the highest astronomical tide and the lowest astronomical tide. The term foreshore includes both open coast and estuary foreshores.

Geoheritage or geological heritage - refers to the variety of rocks, minerals, fossils, landforms, sediments and soils, together with the natural processes which form and alter them, which provide information about the Earth's past.

Green infrastructure is an adaptable term used to describe an array of products, technologies and practices that use natural systems – or designed systems which mimic natural processes – to improve environmental sustainability and human quality of life.

Greenbelt is an area of open land around an urban settlement, on which building is restricted.

Hazard is a process or activity that affects an asset or value. See also 'coastal hazards', which are the specific hazards defined in the NSW *Coastal Management Act 2016.*

Intermittently closed and open lakes and lagoons (ICOLL) are those where the entrance may be closed to the sea from time to time and for varying periods, by accretion of a berm. ICOLLs have sensitive water quality because they accumulate loads of sediment and nutrients from the catchment and may have limited water circulation and flushing. The most sensitive waterways listed in the Resilience and Hazards SEPP are all ICOLLs. The catchments of ICOLLs are included in the coastal environment area.

Legacy issues are land-use planning issues caused by past decisions on how and where development occurs. Consequences are often felt decades after the decision and 'inherited' by future users of the land or communities. A common example is historic development in areas now exposed to coastal hazard risks.

Legacy infrastructure is infrastructure relating to a previous land use that is no longer active and, in general, not directly relevant to the present activities on site.

Littoral rainforest is a closed forest ecological community recognised by its closeness to the ocean (generally less than 2 kilometres away) and closed canopy (that is, about 70% of the sky is obscured by tree leaves and limbs). These rainforests are listed as endangered ecological communities under the NSW *Biodiversity Conservation Act 2016.*

Longshore drift – also known as littoral drift – is the sediment moved along a coastline under the action of longshore currents caused by waves.

LGA is a local government area.

Natural features means components and processes present or produced by nature. This includes, but is not limited to, soil types, geology, slopes, vegetation, surface water, drainage patterns, aquifers, recharge areas, climate, floodplains, aquatic life, and wildlife.

Natural features of foreshores are the components and processes present or produced by nature in a foreshore. This can include, but is not limited to, landforms, ecosystems and species, beaches, coastal lakes, estuaries, coastal wetlands, coastal lagoons, and riparian corridors, headlands, rock platforms, shoreline access areas, climate, and habitats.

Passive recreation is generally associated with the use of nature-based settings such as bushland, parks and reserves, beaches and national parks.

Planning proposal is a document and supporting information that explains the intended effect of and justification for a proposed local environmental plan or amendment to a local environmental plan. In some limited circumstances, a planning proposal can also explain the intended effect of and justification for a proposed amendment to a state environmental planning policy.

Ribbon development refers to a line of houses and/or commercial buildings along the coastline, radiating from a human settlement, each being served by individual access.

Riparian relates to the banks of a body of water, such as an estuary, river or creek.

Rock platforms are flat, eroded regions at the bottom of headlands formed by water and wind abrasion.

Scale refers to the size of a building and its elements and its relationship with the surrounding buildings or landscape.

Setback is the horizontal distance from a building to a prescribed boundary (such as a site boundary) or other relevant marker (such as the alignment of houses in a street).

Sea level rise is an increase in the mean level of the oceans. Relative sea level rise happens where there is a local increase in the level of the ocean relative to the land, which might be caused by the ocean rising, the land subsiding, or both.

Sensitive coastal ecosystems is used in these guidelines to refer to any coastal ecosystem that is vulnerable to the effects of human activities and requires more protection and care.

Sensitive receiving environments are parts of the existing environment, such as wetlands, lakes, estuaries and rivers, that are particularly sensitive to pollution and disturbance.

Shoreline recession is a continuing landward movement of the shoreline, or a net landward movement of the shoreline over time.

Significance means the sum of the cultural and natural heritage values of a place (English Heritage 2007). Cultural heritage value has many aspects, including:

- evidential value, including archaeological value, which is the potential of a place to yield primary information about past human activity
- historical value, which is the ways in which it can provide direct links to past people, events and aspects of life
- aesthetic value, including architectural value, which is the ways in which people respond to a place through sensory and intellectual experience of it
- communal value, which is the meanings of a place for the people who identify with it, and communities for whom it is part of their collective memory.

Solar access is the ability of a building or place to receive direct sunlight without obstruction from other buildings or impediments.

Threat, in the coastal management context, is a process or activity that puts pressure on one or more coastal assets or values. Threats may include land uses (for example, housing or recreation), land management, climate change, industrial discharges, stormwater runoff, overfishing and invasive species.

Threatened ecological community is defined by the *Biodiversity Conservation Act 2016* as a critically endangered ecological community, an endangered ecological community or a vulnerable ecological community listed in Schedule 2 of that Act.

Threatened species is defined by the *Biodiversity Conservation Act 2016* as a critically endangered species, an endangered species or a vulnerable species listed in Schedule 1 of that Act.

Tidal inundation is the inundation of land by tidal action under average meteorological conditions and the incursion of sea water onto low-lying land that is not normally inundated during a high sea level event such as a king tide or because of longer-term sea level rise.

Urban design is an interdisciplinary practice that draws together elements of many built environment professions, including landscape architecture, urban planning, architecture, civil and municipal engineering.

Urban heat islands are areas that are hotter than natural environments due to hard, sealed surfaces and a lack of vegetation or 'green infrastructure' such as tree canopies, vegetated roofs and walls and waterways. This is because hard surfaces absorb, store and radiate heat, while green infrastructure reflects heat, provides shade and releases water into the atmosphere. Urban heat islands make higher temperatures and extreme hot weather events more severe and difficult to manage, placing more people at risk of exposure.

Vulnerable communities are those that are susceptible to the effects of a hazard, based on physical, social, economic and environmental factors. Communities of greater vulnerability may have one or more of the following characteristics:

- changes in population
- significant numbers of older or young persons
- lower socio-economic groups
- regional location or remoteness from emergency services
- people with mobility issues
- people with language barriers
- isolation during and after a hazard event.

Water-sensitive urban design is water cycle management within the built environment that seeks to replicate natural processes when treating water.

For more definitions for the coastal zone, see the Coastal Management Glossary (PDF 254KB).

Appendix

Appendix 1: Assessment checklist for planning proposals

Hierarchy of coastal management areas:

1. CWLRA = coastal wetlands and littoral rainforests area
2. CVA = coastal vulnerability area
3. CEA = coastal environment area
4. CUA = coastal use area

Outcome A. Protect and enhance coastal environmental values			
Requirement	**Relevant coastal management area(s)**	**Applicable to planning proposal (Y/N)**	**Planning proposal is consistent with guidelines (Y/N) If 'No', justify this**
Outcome A.1 Protect coastal ecosystems			
A.1a Avoid development on undeveloped headlands and significant coastal landforms.	CVA, CEA		
A.1b Do not increase development or intensify land uses where there is existing development on headlands and significant coastal landforms.	CVA, CEA		
A.1c Identify, protect and enhance sensitive coastal ecosystems including coastal wetlands, littoral rainforests and other coastal threatened ecological communities that may be affected by development.	CWLRA, CEA		
A.1d Maintain and protect the presence of beaches, rock platforms, coastal dunes, riparian vegetation and the natural features of foreshores, including along estuaries and coastal lakes.	CWLRA, CVA, CEA		
A.1e Use environmental buffers and limit the number of access points and pathways to protect coastal ecosystems. In some cases, it may not be appropriate to allow public access to areas with highly sensitive ecosystems or animal populations.	CWLRA, CEA, CUA		
A.1f Consider if the planning proposal is needed or if development zones could be better located to minimise effects on biodiversity.	CWLRA, CEA, CUA		
A.1g Avoid development that may disturb, expose or drain areas of Class 1 and Class 2 acid sulfate soils.	CWLRA, CEA, CUA		
A.1h Consider direct and indirect effects of development, including any necessary infrastructure, on water quality, water quantity and hydrological flows of waterways and groundwater.	CEA, CUA		

Outcome A. Protect and enhance coastal environmental values			
Requirement	**Relevant coastal management area(s)**	**Applicable to planning proposal (Y/N)**	**Planning proposal is consistent with guidelines (Y/N) If 'No', justify this**
Outcome A.2 Protect coastal wetlands and littoral rainforests			
A.2a Identify coastal wetlands and littoral rainforests, including areas that could be rehabilitated or restored in the future, and do not increase development or intensify land uses in these areas.	CWLRA		
A.2b Allow for the adaptive management of stormwater run-off so that the quality of water leaving the site is better than pre-development quality to lessen effects on coastal wetlands or other sensitive receiving environments.	CWLRA, CEA, CUA		
A.2c Provide environmental buffers and riparian corridors that enable the long-term management and protection of areas of biodiversity and ecosystem integrity.	CWLRA, CVA, CEA, CUA		
A.2d Identify and protect areas that allow for landward migration pathways for coastal wetlands to respond to climate change.	CWLRA, CEA		
A.2e Exclude land uses that affect the natural state of coastal wetlands and littoral rainforests or that will make it harder to rehabilitate these ecosystems in the future.	CWLRA		
Outcome A.3 Protect marine parks and aquatic reserves			
A.3a Avoid development and land uses that affect the environmental, economic, social and cultural values of marine parks and aquatic reserves.	CEA, CUA		
A.3b Protect the ecological health of marine parks and aquatic reserves, including providing for riparian vegetation and buffers in their catchments.	CEA, CUA		

Outcome B. Ensure the built environment is appropriate for the coast and local context			
Requirement	**Relevant coastal management area(s)**	**Applicable to planning proposal (Y/N)**	**Planning proposal is consistent with guidelines (Y/N) If 'No', justify this**
Outcome B.1 Respond to and protect elements that make the place special			
B.1a Integrate development within the natural topography of the site and ensure land use, building scale and height respond sympathetically to coastal landforms.	CWLRA, CVA, CEA, CUA		
B.1b Ensure the intended form and footprint of development does not dominate coastal elements, including foreshores, public spaces and other areas of natural beauty.	CWLRA, CVA, CEA, CUA		
B.1c Incorporate adaptive, water-sensitive urban design into the development footprint to reduce run-off and manage water quality within receiving environments.	CWLRA, CEA, CUA		
B.1d Ensure that lot sizes, building heights and density are appropriate for the coastal settlement, and complement the existing or desired local character, supported by place-based strategies.	CEA, CUA		
B.1e Avoid development that would harm geological features and geoheritage.	CEA, CUA		
Outcome B.2 Ensure urban development complements coastal scenic values			
B.2a Limit ribbon development and urban sprawl wherever possible. In certain locations, place-based strategies may support increased development density and building heights as a better response to urban growth.	CEA, CUA		
B.2b Use greenbelts to create, maintain and mark out separation between settlements.	CEA, CUA		
B.2c Consider effects on scenic values and maintain publicly accessible views to significant landmarks.	CEA, CUA		
B.2d Ensure that building heights consider the effect on views from different vantage points.	CEA, CUA		
B.2e Retain or create views from public spaces. Prioritise this over creating views from private property.	CEA, CUA		
B.2f Provide for active transport links along foreshores, including along estuaries and coastal lakes, and between settlements to increase public access and amenity.	CWLRA, CVA, CEA, CUA		

Outcome C. Protect and enhance the social and cultural values of the coastal zone			
Requirement	**Relevant coastal management area(s)**	**Applicable to planning proposal (Y/N)**	**Planning proposal is consistent with guidelines (Y/N) If 'No', justify this**
Outcome C.1 Protect and promote heritage values			
C.1a Ensure development does not harm heritage values or sites.	CWLRA, CVA, CEA, CUA		
C.1b Work collaboratively with local Aboriginal people before and throughout the planning proposal process.	CWLRA, CVA, CEA, CUA		
C.1c With permission and guidance from local Traditional Custodians, identify and emphasise significant features of coastal land and sea Country.	CWLRA, CVA, CEA, CUA		
C.1d With permission and guidance from local Traditional Custodians, identify and protect sacred and significant areas through the appropriate siting of development.	CWLRA, CVA, CEA, CUA		
C.1e Ensure land use, building type, scale and height respond to heritage items and areas.	CEA, CUA		
Outcome C.2 Provide public access to significant coastal assets			
C.2a Protect and, where practical, improve, public amenity, access to and use of beaches, foreshores, rock platforms, geoheritage sites and headlands, unless you must restrict access for public safety or for environmental or cultural protection. In doing so, consider both current and projected future coastal hazards.	CVA, CEA		
C.2b Identify opportunities to maintain and improve existing public access to beaches, foreshores, coastal waters and coastal lakes that support active and passive recreation activities, where this does not interfere with existing coastal industries.	CWLRA, CVA, CEA, CUA		
C.2c Consolidate access points and consider alternative access to protect sacred and significant Aboriginal cultural areas.	CWLRA, CVA, CEA, CUA		
C.2d Maintain and improve foreshore access and connections to existing or proposed networks of public open spaces. This includes waterways, riparian areas, bushland and parks for active and passive recreation.	CWLRA, CVA, CEA, CUA		
C.2e Consider opportunities to protect and improve habitat connectivity through settlements, such as those described in the *Greener Places Design Guide.*	CWLRA, CEA, CUA		

Outcome C. Protect and enhance the social and cultural values of the coastal zone			
Requirement	**Relevant coastal management area(s)**	**Applicable to planning proposal (Y/N)**	**Planning proposal is consistent with guidelines (Y/N) If 'No', justify this**
C.2f Avoid development on coastal dunes and foreshore reserves unless it is for essential public purposes, such as surf life-saving club buildings. Any building or structure located on dunes must be of lightweight construction and relocatable.	CVA, CEA		
C.2g Define the boundaries of development sites with a public edge – for example, a pedestrian pathway or public laneway.	CEA, CUA		
C.2h Prevent the privatisation of coastal open space by ensuring development next to foreshores is set back, maintains public access and accessibility, and provides links and connections to other public accessways.	CEA, CUA		
Outcome C.3 Protect public amenity			
C.3a Avoid development that will overshadow the beach, foreshore or public domain. Apply the standard that there must be no overshadowing before 4 pm (midwinter) and 7 pm (Eastern Daylight Saving Time).	CEA, CUA		
C.3b Protect the amenity of public spaces from buildings, structures or land uses that may be visually and/or acoustically intrusive or create wind funnels.	CEA, CUA		

Outcome D. Support sustainable coastal economies			
Requirement	**Relevant coastal management area(s)**	**Applicable to planning proposal (Y/N)**	**Planning proposal is consistent with guidelines (Y/N) If 'No', justify this**
Outcome D.1 Support sustainable industries and recreational activities that depend on the coast			
D.1a Ensure that development will not harm sustainable coastal industries needing waterfront access, or recreational use of the coastal environment.	CEA, CUA		
D.1b Protect and improve essential facilities such as access ramps and jetties for sustainable coastal industries needing waterfront access.	CEA, CUA		
D.1c Ensure access ramps, jetties, pontoons, groynes and other structures do not impede navigation on the water or harm coastal landforms or impair processes such as surf breaks.	CWLRA, CVA, CEA, CUA		
D.1d Ensure that the proposal considers how development in a waterway may affect the land.	CEA, CUA		
Outcome D.2 Promote green infrastructure			
D.2a Do not allow development that is likely to significantly reduce connectivity of existing green infrastructure.	CEA, CUA		
D.2b Provide for diverse green infrastructure that can support the changing needs of current and future communities, and provide tourism and recreational opportunities.	CEA, CUA		

Outcome E. Respond to coastal hazards			
Requirement	**Relevant coastal management area(s)**	**Applicable to planning proposal (Y/N)**	**Planning proposal is consistent with guidelines (Y/N) If 'No', justify this**
Outcome E.1 Respond to coastal processes			
E.1a Planning proposals that affect land within a coastal hazard and risk area must not alter coastal processes in a way that harms the natural environment or other land.	CWLRA, CVA, CEA, CUA		
E.1b Exclude development in areas affected by a current or projected future coastal hazard that is likely to increase the risk of coastal hazards on that land or other land.	CWLRA, CVA, CEA, CUA		
E.1c Locate or consolidate development in areas with little or no exposure to current and projected future coastal hazards, to ensure public safety and prevent risks to life.	CWLRA, CVA, CEA, CUA		
E.1d Do not increase development potential or intensify land uses in a coastal hazard or risk area.	CWLRA, CVA, CEA, CUA		
Outcome E.2 Account for natural hazard risks			
E.2a Identify areas on and near the proposal that are affected by current or projected future coastal hazards. Ensure that the proposal is compatible with any identified threat or risk.	CWLRA, CVA, CEA, CUA		
E.2b Account for potential interaction between coastal hazards and other current and future natural hazards. This includes flooding, bushfires, landslip, heatwaves, severe storms, east coast lows and cyclones. Refer to the *Strategic Guide to Planning for Natural Hazards.*	CWLRA, CVA, CEA, CUA		
E.2c Manage natural hazard risk within the development site. Avoid using public space or adjoining land to lessen risk.	CWLRA, CVA, CEA, CUA		
Outcome E.3 Account for climate change			
E.3a Demonstrate that the proposal applies a 100-year planning horizon for the full range of climate change projections for coastal hazards. This approach recognises that sea level is projected to continue to rise for centuries because of climate change.	CWLRA, CVA, CEA, CUA		
E.3b Consider how climate change could affect the risk profile of existing natural hazards and create new vulnerabilities and exposure for the proposal in the future.	CWLRA, CVA, CEA, CUA		

Outcome E. Respond to coastal hazards			
Requirement	**Relevant coastal management area(s)**	**Applicable to planning proposal (Y/N)**	**Planning proposal is consistent with guidelines (Y/N) If 'No', justify this**
Outcome E.4 Provide sustainable defences to coastal hazards			
E.4a Reduce exposure to coastal hazards by protecting, restoring or improving natural defences. This includes coastal dunes, vegetation, coastal floodplains and coastal wetlands, where suitable.	CWLRA, CVA, CEA, CUA		
E.4b If natural defences are not possible, reduce exposure to coastal hazards without significantly degrading: • **biological diversity and ecosystem integrity** • **ecological, biophysical, geological and geomorphological coastal processes** • **beach and foreshore amenity, or the social and cultural value of these areas** • **public safety and access to, or use of, beaches or headlands.**	CWLRA, CVA, CEA, CUA		
Outcome E.5 Protect essential infrastructure			
E.5a Locate and design essential infrastructure to reduce vulnerability to current and projected future coastal hazards. Consider the effects of climate change over at least a 100-year planning horizon.	CWLRA, CVA, CEA, CUA		
E.5b Where exposure to coastal hazards cannot be avoided, prepare adaptation plans for essential service infrastructure. These plans should be consistent with any applicable coastal management program.	CWLRA, CVA, CEA, CUA		
E.5c Consult local Aboriginal land management experts and emergency management agencies on how to strategically locate access routes and other essential infrastructure.	CWLRA, CVA, CEA, CUA		
Outcome E.6 Change land uses to manage legacy issues and avoid creating new ones			
E.6a Ensure the proposal will not require coastal management interventions to remain viable over its expected lifespan.	CWLRA, CVA, CEA, CUA		
E.6b Consider the potential legacy effects of the proposal and if the proposed land uses or development will create a social, environmental, economic or cultural burden for future generations.	CWLRA, CVA, CEA, CUA		
E.6c Consider if the proposed change of land use could remove redundant legacy infrastructure or reduce existing legacy effects.	CWLRA, CVA, CEA, CUA		

Appendix 2: Assessment checklist for urban design

Hierarchy of coastal management areas:

1. CWLRA = coastal wetlands and littoral rainforests area
2. CVA = coastal vulnerability area
3. CEA = coastal environment area
4. CUA = coastal use area

4.2 Design guidance for the natural environment			
Design objective	**Relevant coastal management area(s)**	**Applicable to design (Y/N)**	**The design is consistent with guidelines (Y/N) If 'No', justify this**
4.2.1 Base considerations on a hierarchy of landform, then landscape, then built form			
4.2.1a Site and orientate structures to reinforce natural coastal landform.	CWLRA, CVA, CEA, CUA		
4.2.1b Account for dynamic coastal processes and the changing nature of the landform under projected climate change scenarios and effects.	CWLRA, CVA, CUA, CEA		
4.2.1c Integrate public spaces and infrastructure with coastal landforms and systems.	CEA, CUA		
4.2.1d Create block and lot patterns responsive to topography, water flow, natural coastal assets and cultural landscapes.	CEA, CUA		
4.2.1e Maintain the ecological integrity of the foreshore and headlands, and retain public views of these coastal landscapes. Prioritise this over creating views and outlooks from private properties.	CVA, CEA, CUA		
4.2.2 Protect and enhance water quality, hydrological systems and coastal processes			
4.2.2a Support and incorporate water-sensitive urban design approaches.	CWLRA, CVA, CEA, CUA		
4.2.2b Identify and protect sensitive downstream environments such as marine parks, aquatic reserves, coastal wetlands, coastal lakes and national parks from adverse effects on water quality and quantity, and hydrological flows.	CWLRA, CVA, CEA, CUA		
4.2.2c Consider opportunities to re-naturalise and engineer hydrology, hydraulics and flow regimes to support natural coastal and floodplain processes (for example, floodplain inundation, saltmarsh inundation, longshore drift).	CWLRA, CVA, CEA, CUA		
4.2.2d Remediate or remove legacy infrastructure that may be harming coastal environments and waterways.	CWLRA, CVA, CEA, CUA		

4.2 Design guidance for the natural environment			
Design objective	**Relevant coastal management area(s)**	**Applicable to design (Y/N)**	**The design is consistent with guidelines (Y/N) If 'No', justify this**
4.2.3 Identify, protect and enhance sensitive coastal ecosystems and threatened ecological communities			
4.2.3a Minimise disturbance to sensitive coastal ecosystems by grouping structures and providing common access points (such as walkways). Avoid vehicular access within sensitive coastal ecosystems.	CWLRA, CVA, CEA, CUA		
4.2.3b Avoid and minimise effects on areas of high biodiversity value.	CWLRA, CVA, CEA, CUA		
4.2.3c Restore, protect and improve sensitive coastal ecosystems – such as intertidal foreshores, coastal wetlands, littoral rainforests and riparian habitats – and increase connectivity between remnant areas where possible.	CWLRA, CVA, CEA, CUA		
4.2.3d Restore the natural characteristics of foreshore areas wherever possible.	CVA, CEA		
4.2.3e Provide vegetated setbacks to protect coastal ecosystems.	CWLRA, CVA, CEA, CUA		
4.2.3f Identify and plan for landward migration pathways for coastal wetlands to respond to climate change.	CWLRA, CEA		
4.2.3g Consider connectivity between the land and waterways holistically, including the effects of the development on ecological connectivity and ecosystem functions.	CWLRA, CEA		
4.2.3h Adopt lighting design that reduces light pollution to minimise effects on wildlife – refer to the *National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds*.	CWLRA, CVA, CEA, CUA		
4.2.3i Adopt acoustic design that minimises effects of construction and operational noise on wildlife.	CWLRA, CVA, CEA, CUA		
4.2.3j Naturalise drainage patterns and channels to manage overland flow, increase civic amenity, improve ecological connectivity and restore ecosystems.	CWLRA, CEA, CUA		

4.2 Design guidance for the natural environment			
Design objective	**Relevant coastal management area(s)**	**Applicable to design (Y/N)**	**The design is consistent with guidelines (Y/N) If 'No', justify this**
4.2.4 Ensure that the natural coastal environment is integrated into built coastal environments			
4.2.4a Maintain the presence of beaches, dune systems, undeveloped headlands and other natural features of foreshores.	CVA, CEA		
4.2.4b Encourage filtered views throughout the built environment to reinforce the presence of coastal landforms.	CEA, CUA		
4.2.4c Use landscaping and planting of locally endemic species to connect habitat, water systems and settlements.	CWLRA, CVA, CEA, CUA		
4.2.4d Use planting of locally endemic species and landscape design to screen built structures that may be viewed from the foreshore or coastal waterways.	CEA, CUA		
4.2.4e Mitigate urban heat island and climate change effects in built coastal environments by preserving and expanding tree canopy cover, riparian vegetation, wildlife corridors and habitat.	CWLRA, CEA, CUA		
4.2.5 Use nature-based solutions as the first option to address environmental challenges, avoiding hard engineering solutions where possible			
4.2.5a Naturalise riparian corridors to support coastal processes and mitigate the effect of weather events, including on coastal floodplains.	CWLRA, CVA, CEA, CUA		
4.2.5b Site infrastructure and structures (for example, foreshore facilities) to minimise environmental impact and enable natural tidal flows, propagation of marine life and longshore drift.	CWLRA, CVA, CEA, CUA		
4.2.5c Encourage locally endemic planting and control weeds to promote and restore the functions and resilience of coastal dune systems.	CVA, CEA		
4.2.5d Improve the capacity of soils to absorb and filter water (for example, encourage vegetated swales and pervious surfaces).	CWLRA, CEA, CUA		
4.2.5e Avoid reclaiming land or constructing hard barriers. Instead, create re-naturalised zones to allow adaptation to coastal processes.	CWLRA, CVA, CEA, CUA		
4.2.5f When natural solutions are not possible, consider using techniques to reduce the environmental effect of engineering solutions, such as those described in the *Environmentally Friendly Seawall Guideline*.	CWLRA, CVA, CEA, CUA		

4.3 Design guidance for the built environment			
Design objective	**Relevant coastal management area(s)**	**Applicable to design (Y/N)**	**The design is consistent with guidelines (Y/N) If 'No', justify this**
4.3.1 Use built form to reinforce the beauty and character of coastal places			
4.3.1a Use building type, scale, height and aspect to ensure development integrates with, and does not dominate, coastal landforms and other elements of the coastal environment (for example, keep building mass below tree canopy and ridge lines).	CWLRA, CVA, CEA, CUA		
4.3.1b Orient streets and structures towards significant features of the coast and to capture sea breezes for passive cooling.	CUA		
4.3.1c Protect and enhance view corridors to and from the foreshore, water bodies and natural features.	CEA, CUA		
4.3.1d Locate and design development to limit the visual intrusion of buildings when viewed from public spaces, and the overshadowing of beaches, foreshores and the public domain before 4 pm (midwinter) and 7 pm (Eastern Daylight Saving Time)	CEA, CUA		
4.3.1e Create built form that responds to, connects with and celebrates the cultural heritage of coastal Aboriginal peoples.	CWLRA, CVA, CEA, CUA		
4.3.1f Use materials that are resilient, sustainable and that weather well in coastal environments.	CWLRA, CVA, CEA, CUA		
4.3.1g Respond to the natural form of coastal landscapes and minimise cut and fill wherever possible.	CEA, CUA		
4.3.1h Avoid materials that are highly reflective. Use materials, finishes and colours that complement the coastal landscape.	CEA, CUA		
4.3.1i Provide green infrastructure to meet local needs for green space and tree canopy, in keeping with the principles of the *Greener Places Design Guide*.	CEA, CUA		

4.3 Design guidance for the built environment			
Design objective	**Relevant coastal management area(s)**	**Applicable to design (Y/N)**	**The design is consistent with guidelines (Y/N) If 'No', justify this**
4.3.2 Ensure connectivity through and between coastal places			
4.3.2a Create continuous coastal connectivity (for example, by using natural pathways and boardwalks).	CWLRA, CVA, CEA, CUA		
4.3.2b Ensure local connectivity networks link transport nodes, settlement centres and significant coastal features.	CWLRA, CEA, CUA		
4.3.2c Design walkable access ways and road networks in response to significant coastal landforms and foreshore areas.	CWLRA, CVA, CEA		
4.3.2d Use open spaces to link significant natural, cultural and heritage features (for example, coastal walks, songlines, heritage trails).	CWLRA, CVA, CEA, CUA		
4.3.3 Ensure civic amenity and appropriate access to the coastal environment			
4.3.3a Prioritise walking (including all forms of equitable access), cycling and public transport over movement and parking for private vehicles along coastal foreshores.	CWLRA, CVA, CEA, CUA		
4.3.3b Provide clear and limited entry points to coastal environments to protect coastal vegetation, sensitive coastal ecosystems and important habitat, such as for migratory species.	CWLRA, CVA, CEA		
4.3.3c Restrict vehicular entries and encourage non-vehicular access to, and within, the coastal environment.	CWLRA, CVA, CEA, CUA		
4.3.3d Minimise and elevate roads, crossings and walkways over waterways and water bodies.	CWLRA, CVA, CEA, CUA		
4.3.3e In high-use areas such as foreshores, if space allows, create distinct pedestrian walks and cycle paths, separated from busy roads. In areas with more limited space, separate roads from combined pedestrian and cycle paths.	CWLRA, CVA, CEA, CUA		
4.3.3f Protect the character of town centre and foreshore access roads by ensuring development fronting onto these roads is consistent with the existing or desired local character.	CEA, CUA		
4.3.3g Where vehicular traffic ends, ensure pedestrian and cycle movement can continue to provide access to the coastal environment.	CWLRA, CVA, CEA, CUA		
4.3.3h With permission and guidance from local Traditional Custodians, protect sacred and significant areas through siting and consolidating access points appropriately.	CWLRA, CVA, CEA, CUA		

4.3 Design guidance for the built environment			
Design objective	**Relevant coastal management area(s)**	**Applicable to design (Y/N)**	**The design is consistent with guidelines (Y/N) If 'No', justify this**
4.3.4 Create spatial frameworks that are resilient to coastal hazards			
4.3.4a Locate development, essential services and infrastructure away from coastal hazard and risk areas wherever possible.	CVA, CEA, CUA		
4.3.4b Accommodation, services and facilities for vulnerable communities must be located landward of coastal hazard and risk areas.	CVA, CEA, CUA		
4.3.4c Ensure that the location and design of development reduces exposure to risks from coastal hazards over the life of the development.	CVA, CEA, CUA		
4.3.4d Ensure service and infrastructure design considers risk to life, evacuation of public property and safety from coastal hazards, without relying on emergency responses, particularly during periods of peak demand.	CVA, CEA, CUA		
4.3.4e If development to reduce exposure to coastal hazards will increase erosion of the beach and/or adjacent land, provide for the restoration of the beach and/or adjacent land.	CVA, CEA, CUA		
4.3.4f Allow for temporary, seasonal and low-impact uses in coastal hazard and risk areas, maintaining the land in public ownership.	CVA, CEA, CUA		
4.3.4g Prioritise actions that support the continued functionality of essential infrastructure during and immediately after a coastal hazard emergency.	CVA, CEA, CUA		
4.3.5 If the proposal will locate structures in areas affected by coastal and other natural hazards, ensure that they can be adapted, relocated and transformed.			
4.3.5a Locate development appropriately in relation to projected hazard timelines. Refer to applicable coastal management programs, policies and hazard studies adopted by council.	CVA, CEA, CUA		
4.3.5b Development must not increase the risk or effect of coastal hazards, either by intensifying land use or by altering coastal processes in a way that harms the natural environment or other land.	CVA, CEA, CUA		
4.3.5c In areas at immediate or short-term risk of coastal hazard impact, retrofit, upgrade, relocate or remove structures to protect life and property, and to improve resilience to climate change.	CVA, CEA, CUA		
4.3.5d Encourage design of buildings and structures that are modular, detachable and relocatable.	CVA, CEA, CUA		

4.3 Design guidance for the built environment			
Design objective	**Relevant coastal management area(s)**	**Applicable to design (Y/N)**	**The design is consistent with guidelines (Y/N) If 'No', justify this**
4.3.5e In coastal hazard and risk areas, ensure that buildings, structures and works are engineered to withstand or accommodate coastal hazards for their design life.	CVA, CEA, CUA		
4.3.5f Ensure that infrastructure design and construction use appropriate climate-resilient materials and treatments, such as those described in the *Institute of Public Works Engineering Australia Practice Notes 12.1* and *12.2* (as modified from time to time).	CVA, CEA, CUA		

4.4 Design guidance for the social and economic context			
Design objective	**Relevant coastal management area(s)**	**Applicable to design (Y/N)**	**The design is consistent with guidelines (Y/N) If 'No', justify this**
4.4.1 Encourage sustainable, productive use of the natural coastal environment			
4.4.1a Maintain and improve, where possible, sustainable access for recreational and commercial fishing, including boat maintenance facilities.	CEA, CUA		
4.4.1b Support adaptive re-use of redundant maritime or industrial infrastructure.	CEA, CUA		
4.4.1c Support the changing demographics and economics of coastal areas by providing diverse commercial and retail spaces.	CUA		
4.4.1d Provide tourism and education opportunities associated with iconic local industries, such as aquaculture.	CUA		
4.4.1e Incorporate local environmental and cultural skills into built outcomes (for example, murals by local artists or a living breakwater propagated with oysters from local farmers).	CUA		
4.4.1f Deliver social infrastructure (such as public toilets and litter bins) to support the sustainable use of and visitation to natural assets.	CEA, CUA		
4.4.1g Provide all-weather access to amenities such as boat ramps, watercraft storage racks, showers and changing facilities to promote year-round visitation.	CEA, CUA		
4.4.1h Use environmental remediation as a local attraction – for example, by providing boardwalks across remediated land converted into coastal wetlands.	CWLRA, CEA, CUA		
4.4.2 Ensure coastal infrastructure delivers civic space and community assets			
4.4.2a Maintain public ownership of foreshores and reserves.	CWLRA, CVA, CEA		
4.4.2b Provide, improve and maintain coastal infrastructure to enable access (for example, upgrade paths along breakwaters and estuary foreshores to enable safe access for all).	CWLRA, CVA, CEA, CUA		
4.4.2c Provide social amenity and educational engagement opportunities in re-naturalised coastal spaces (for example, engineered benched seating merging into natural rock platform or tidal pools for marine habitat).	CEA, CUA		
4.4.2d Create high-quality urban amenity and recreational infrastructure (for example, showers and changing facilities, bicycle and surf craft racks, and seating along coastal walkways).	CWLRA, CVA, CEA, CUA		

4.4 Design guidance for the social and economic context			
Design objective	**Relevant coastal management area(s)**	**Applicable to design (Y/N)**	**The design is consistent with guidelines (Y/N) If 'No', justify this**
4.4.2e Provide management facilities to support and enable community stewardship of coastal places (for example, equipment storage for surf lifesaving, bushcare or community garden groups).	CEA, CUA		
4.4.2f Promote adaptive reuse and integration of heritage items into development where appropriate.	CUA		
4.4.3 Acknowledge and protect coastal Aboriginal peoples' spiritual, social, cultural, customary and economic connection to coastal Country			
4.4.3a Enable Traditional Custodians to carry out traditional Aboriginal land management practices within coastal land and sea Country.	CWLRA, CVA, CEA, CUA		
4.4.3b With permission and guidance from Traditional Custodians, help protect coastal places with cultural significance for local Aboriginal communities (for example, scar trees, middens, tree groves, rock carvings, headlands and beaches).	CWLRA, CVA, CEA, CUA		
4.4.3c Where appropriate, work with Traditional Custodians to identify and emphasise culturally significant coastal places in a way that celebrates and supports ongoing cultural connection and practice.	CWLRA, CVA, CEA, CUA		
4.4.3d Where appropriate, introduce interpretive elements into the public realm to engage and educate the community about local Aboriginal culture and heritage values.	CWLRA, CVA, CEA, CUA		
4.4.3e Ensure built form responds to Country and the Aboriginal cultural landscape.	CWLRA, CVA, CEA, CUA		
4.4.4 Support community adaptation to, and management of, current and future coastal hazards			
4.4.4a Development in coastal hazard and risk areas must be consistent with any relevant certified coastal management program. Coastal management programs include adaptation strategies that consider a range of options – from hazard avoidance, accommodation and protection, to managed retreat and loss acceptance.	CWLRA, CVA, CEA, CUA		
4.4.4b For existing structures within coastal hazard and risk areas and foreshore setback areas, develop plans for adaptive management that minimise the effect on natural and cultural values, as well as expense to the community (current and future).	CWLRA, CVA, CEA, CUA		

4.4 Design guidance for the social and economic context			
Design objective	**Relevant coastal management area(s)**	**Applicable to design (Y/N)**	**The design is consistent with guidelines (Y/N) If 'No', justify this**
4.4.4c Support greater public awareness, education and understanding of coastal processes and management actions.	CWLRA, CVA, CEA, CUA		
4.4.4d Include community consultation in the design development process, establishing clear opportunities for continued engagement.	CWLRA, CVA, CEA, CUA		

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