

NSW Coastal Design Guidelines – draft update

For a thriving and resilient coast

July 2022





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, and has been from time immemorial home to the many nations and clans who are the Traditional Custodians of the lands along the coast and throughout Australia.

A shared connection and a great love for the coast unify Aboriginal people of the NSW coast. 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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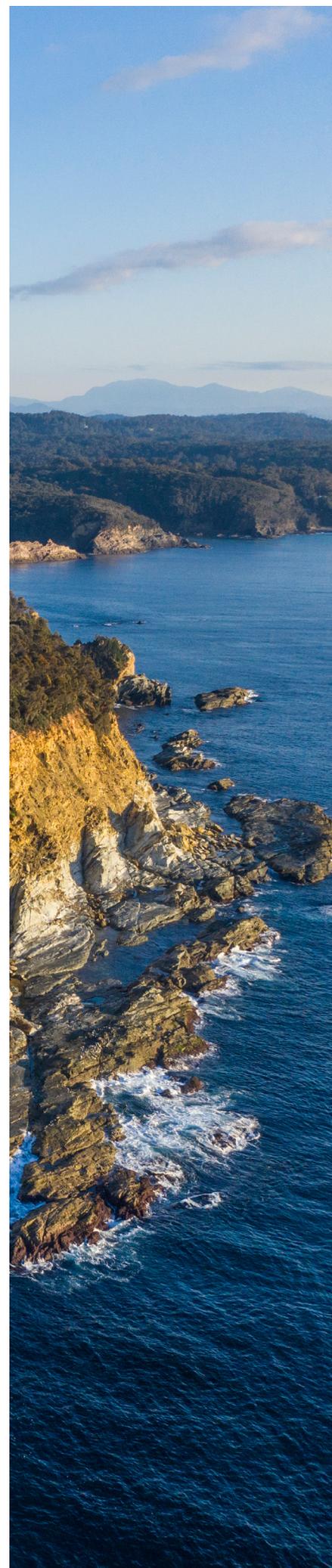
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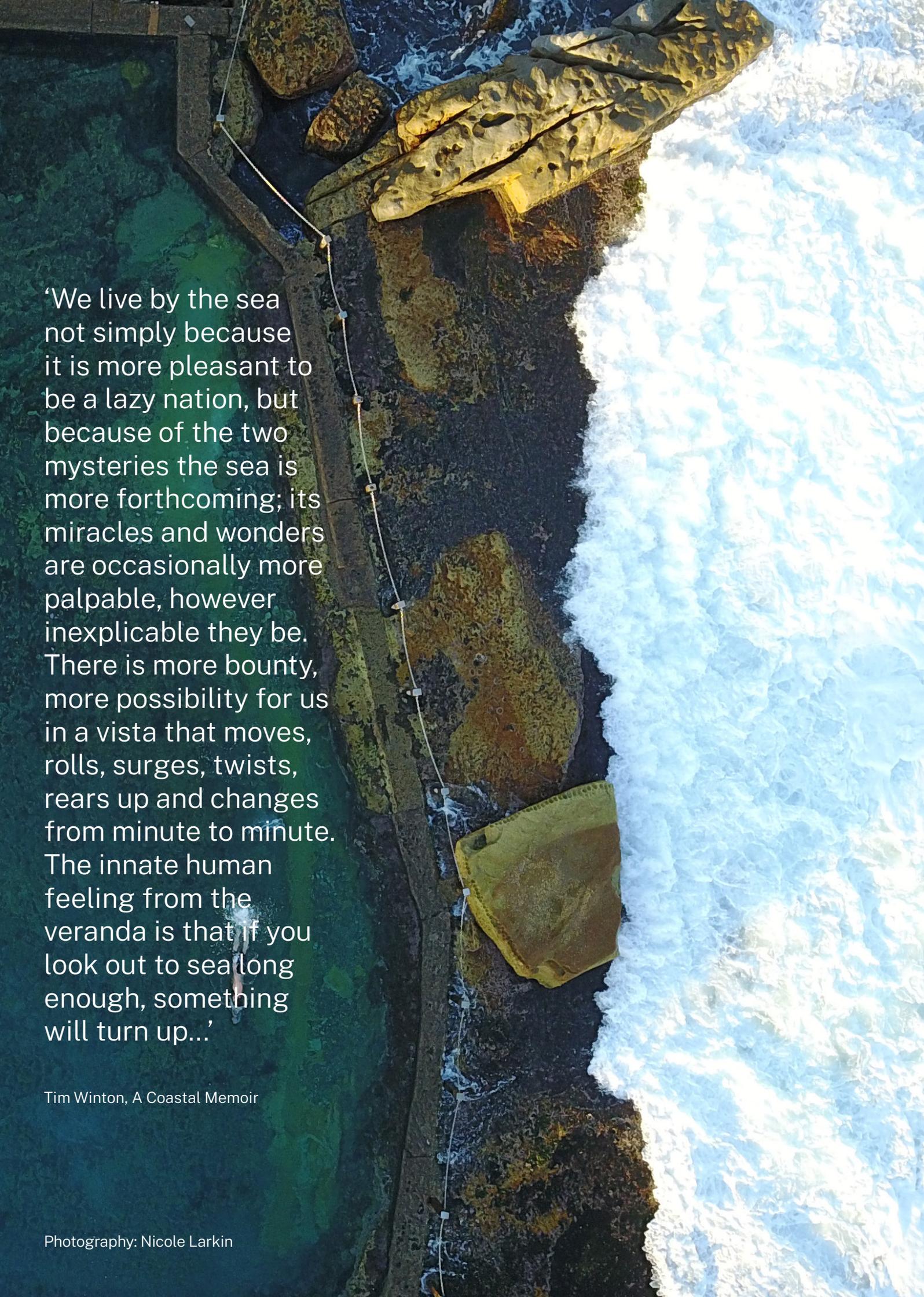
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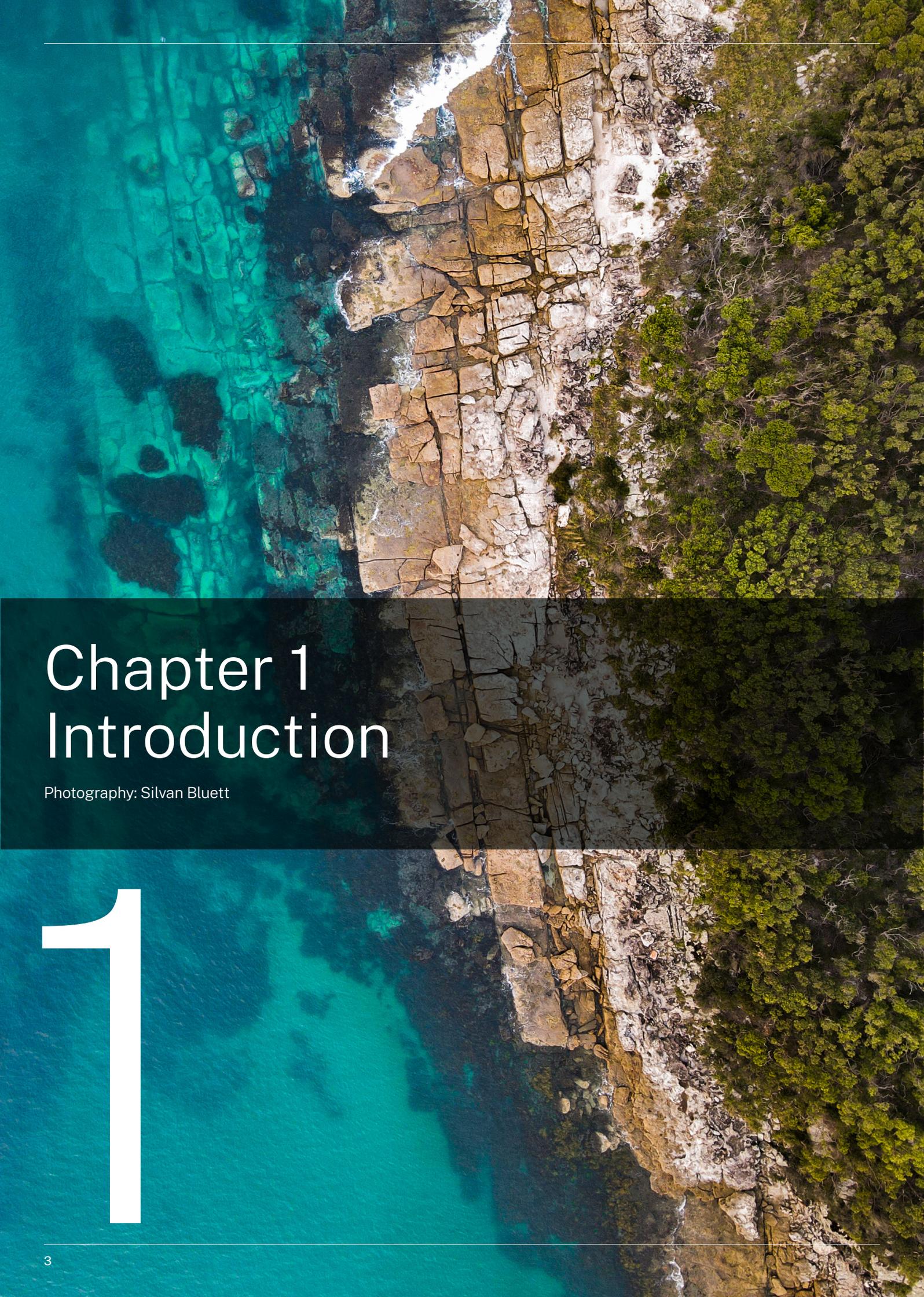


An aerial photograph of a rugged coastline. The image shows dark, jagged rocks meeting the sea. White, frothy waves are crashing against the shore, creating a stark contrast with the dark rocks. A yellow bag or piece of fabric is lying on the rocks near the water's edge. A thin white line, possibly a rope or cable, runs along the rocks. The water in the foreground is a deep, dark green color.

'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

An aerial photograph of a rugged coastline. The top half shows a dense forest of green trees on a rocky shore. The middle section is a dark, semi-transparent horizontal band containing the chapter title. The bottom half shows the turquoise ocean meeting the rocky shore, with a large white number '1' on the left side.

Chapter 1 Introduction

Photography: Silvan Bluett

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1.1 When to use these guidelines

Mandatory application –planning proposals

Local Planning Direction 4.2: Coastal Management requires planning proposals that seek to amend a local environmental plan in the coastal zone to be consistent with the NSW Coastal Design Guidelines. These guidelines should therefore be considered in all planning proposals in the coastal zone.

The Coastal Design Guidelines must be used by local councils, landowners and developers, or their representatives, seeking to change local planning controls in the coastal zone via a planning proposal. The guidelines also help plan-making authorities assess planning proposals.

To be consistent with these guidelines, a planning proposal in the coastal zone must be consistent with the requirements and recommendations set out in section 3.2 of these guidelines.



View from Muttonbird Island Nature Reserve,
Coffs Harbour –City of Coffs Harbour LGA

Optional application –urban design

A secondary purpose of these guidelines is to provide best-practice urban design guidance for development in the coastal zone. The guidelines can be used by designers, architects, and landscapers to better understand coastal places and create best-practice 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 and district plans
- local strategic planning statements
- master plans and precinct plans
- business cases
- development applications, including coastal subdivisions.

The coastal zone

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

- 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. 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](#).



Top: Blue Pool, Bermagui

–Bega Valley Shire LGA

(Nicole Larkin)

Bottom: Bondi Beach at sunrise

–Waverley LGA

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 provide best-practice guidance to support planning proposals and shape urban design in the coastal zone.

Councils, agencies, developers and other stakeholders should enlist the services of professionals trained in urban design, architecture and landscape architecture to make comprehensive use of the guidelines in informing their 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. The chapter then explores the common features, issues and opportunities for coastal places to inform the site analysis process that should occur 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. In order to be consistent with Local Planning Direction 4.2, planning proposals in the coastal zone must give effect to these requirements
- **Chapter 4 – Urban design guidance for the coastal zone** outlines best-practice urban design guidance for coastal places. This chapter goes beyond the level of detail required in planning proposals, which do not address building design. Whilst the use of this chapter is not mandatory, it is strongly encouraged for all design projects in the coastal zone, in order to ensure the design is sensitive to natural coastal environments.

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





Fishing in Tuross River, Tuross Head
 -Eurobodalla Shire LGA (Destination NSW)

1.3 Strategic context

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

Figure 1 shows the strategic context of these guidelines and the main links in the guidelines' strategic framework.

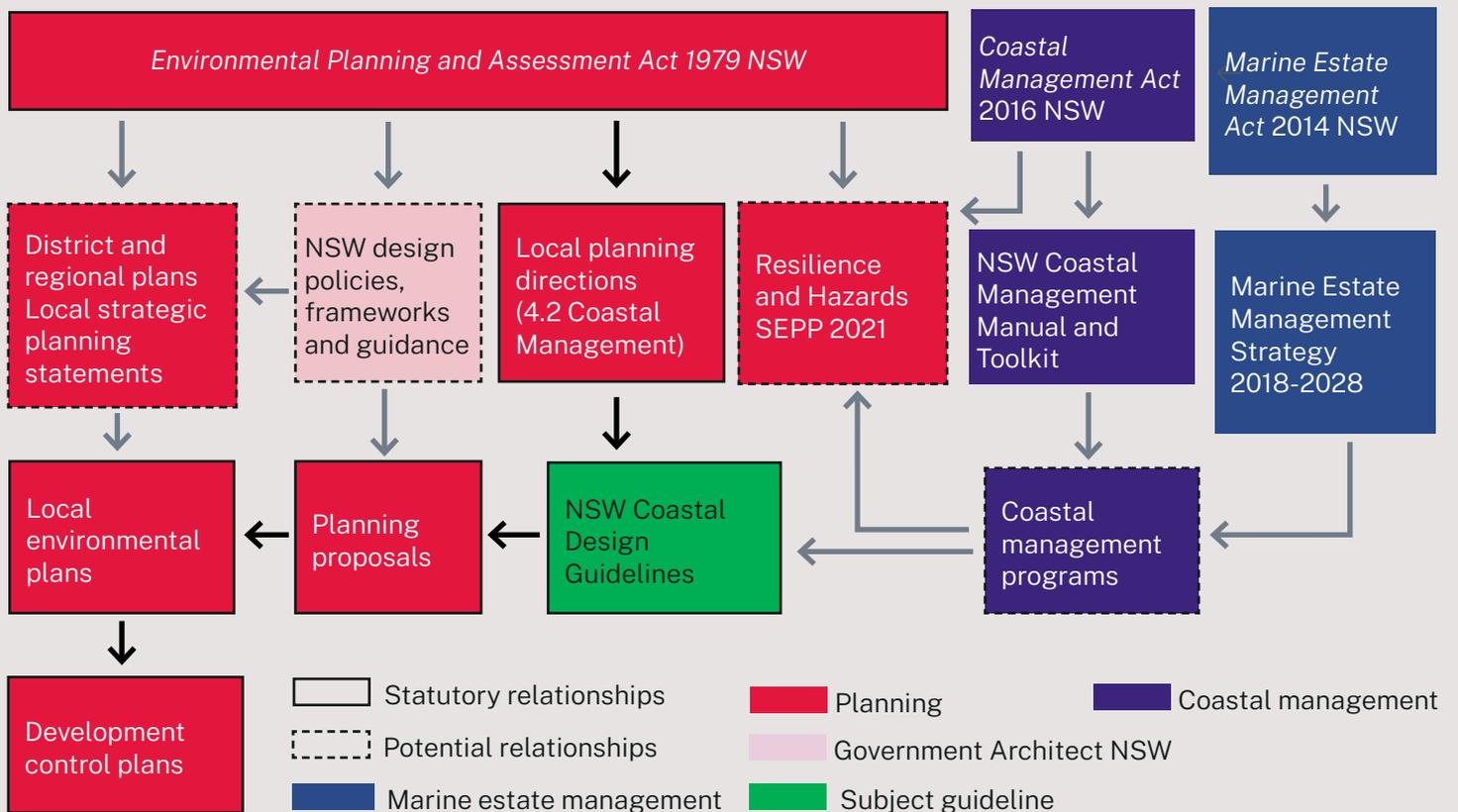
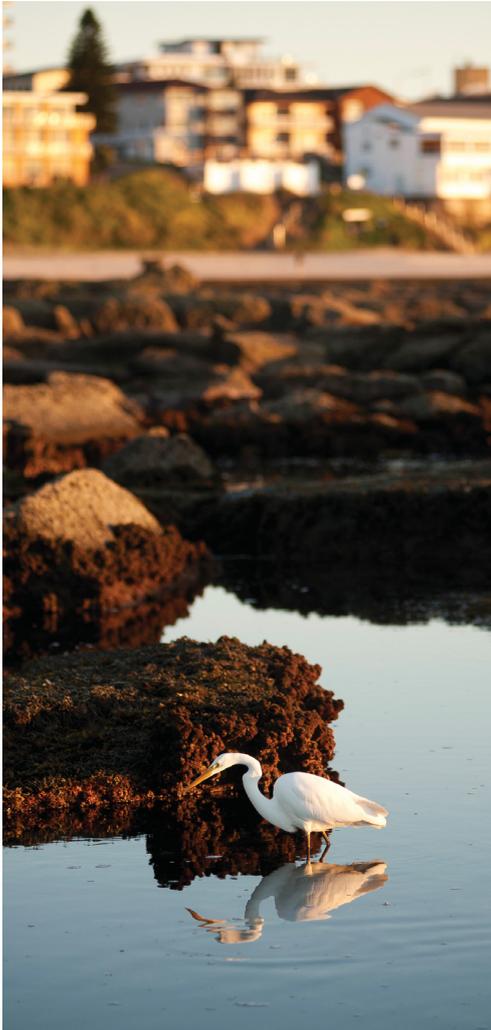


Figure 1. Strategic context of the NSW Coastal Design Guidelines



**Top: Seagulls at the beach,
Diamond Head – MidCoast LGA**
**Bottom: Seabird at the Entrance
– Central Coast LGA**



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 and district 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* (the Resilience and Hazards SEPP) implements the objectives of the Coastal Management Act from a land use planning perspective 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, with tailored development controls to ensure proponents and consent authorities consider and address the most important 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 (and must, if directed by the Minister for Local Government) prepare a coastal management program. The purpose of a coastal management program is to set the long-term strategy for the coordinated management of the coastal zone with a focus on achieving the objects of the Coastal Management Act. It provides an opportunity for councils, public authorities and local communities to plan for, and implement, actions that will help achieve coastal management objectives at a local level, consistent with the objects of the Coastal Management Act.

A coastal management program must identify:

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

Councils should consider the need for a planning proposal to amend zoning or coastal management area mapping within the coastal zone in Stage 1 of the coastal management program process. The studies and modelling that councils may undertake 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 assist local councils when preparing and implementing coastal management programs under the new coastal management framework.

The manual imposes mandatory requirements and provides guidance regarding the preparation, adoption, implementation, amendment, review and the contents of a coastal management program. It also provides 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 coastal management programs.

The [Coastal management toolkit](#) contains additional technical information and guidance to help councils to meet the requirements of the Coastal Management Act, the Resilience and Hazards SEPP and the Coastal management manual. The toolkit contains links to additional resources that councils may find useful in preparing and implementing a coastal management program.



Top: View onto Mount Warning from Tweed River, Murwillumbah

–Tweed Shire LGA

Bottom: Bateman's Bay at sunrise

–Eurobodalla Shire LGA

(Destination NSW)

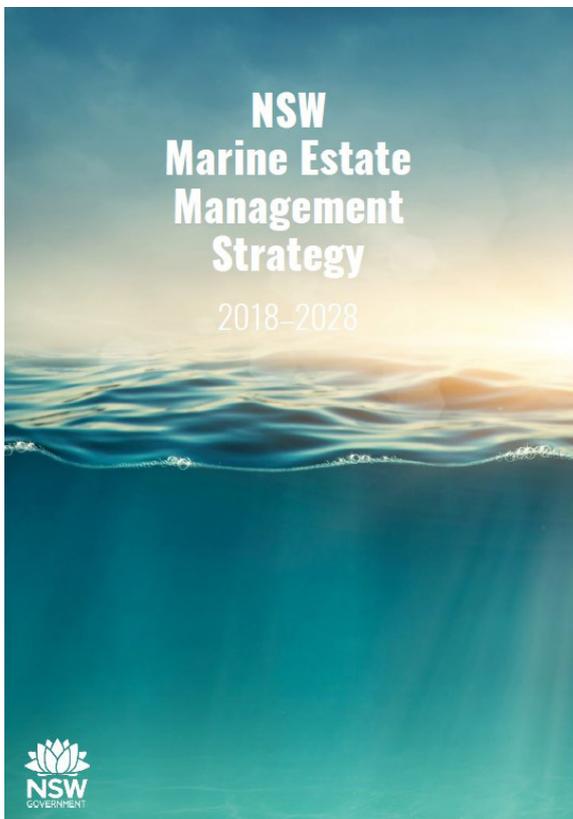
Marine estate management

The Marine Estate Management Act is the legislative framework for the management of 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 relating to the marine estate
- provide for the declaration and management of a comprehensive system of marine parks and aquatic reserves.

The Marine Estate Management Act provided for the creation of the Marine Estate Management Strategy. The strategy aims to ensure an evidence-based, holistic approach to addressing the key threats to the environmental, social, cultural and economic benefits the community derives from the marine estate. 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 focusses on delivering healthy coastal habitats with sustainable use and development.



NSW Marine Estate Management Strategy 2018-2028

Strategic planning framework

Regional and district plans

Regional plans are 20 year plans approved by the Minister for Planning and Minister for Homes that set the framework, vision and direction for strategic planning for regional areas across NSW. They cover land use, planning for future housing, jobs and infrastructure needs, maintaining a healthy environment, and creating connected communities.

Regional plans apply to multiple local government areas. There are 5 regional plans that apply to the coastal areas. These are the South East and Tablelands, Illawarra–Shoalhaven, Central Coast, and Hunter and North Coast regional plans.

Section 3.3 of the NSW *Environmental Planning and Assessment Act 1979* requires regional plans to be prepared with consideration of government policies and directives such as these guidelines.

District plans are prepared by the Greater Sydney Commission and give effect to the Greater Sydney Region Plan – A Metropolis of Three Cities. They apply to Greater Sydney and identify priorities and associated actions that are important to achieving a liveable, productive, and sustainable future for the district, including aligning infrastructure with growth. District plans apply to multiple local government areas. The Eastern City, South and North districts include coastal areas. Section 3.4 of the *Environmental Planning and Assessment Act* requires district plans to be prepared with consideration of government policies and directives such as these guidelines.

Regional and district plans inform local environmental plans (LEPs) and the assessment of planning proposals. The plans also help councils to plan and deliver for 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 specific to their local government area that set out a 20-year land-use framework for their area to help identify ways to manage growth and change. A local strategic planning statement must be consistent with relevant regional and district 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 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 give effect to and are consistent with:

- the objects of the Coastal Management Act and the objectives of the relevant coastal management areas
- the NSW Coastal management manual and associated toolkit
- NSW Coastal Design Guidelines 2003 (this will be updated to refer to the updated guidelines, once finalised)
- 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 continues to have effect under clause 4 of Schedule 3 of the Coastal Management Act, that applies to the land.

Local Planning Direction 4.2 prohibits increased development or more intensive land use in certain areas such as land within a coastal vulnerability area identified by the Resilience and Hazards SEPP.

The local planning directions also establish other considerations relevant to the coastal zone. For example, Local Planning Direction 4.1: Flooding requires that planning proposals, among other things, include provisions that give effect to and are consistent with the NSW Flood Prone Land Policy and the principles of the Floodplain Development Manual 2005 (including the Guideline on Development Controls on Low Flood Risk Areas).

Design guidance

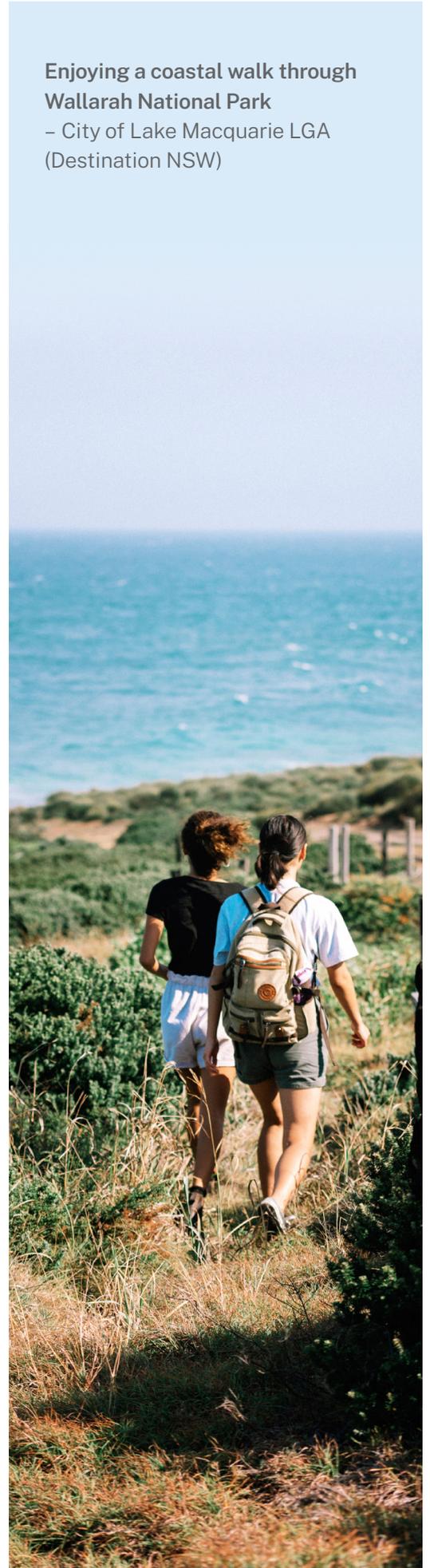
The Government Architect NSW provides strategic design leadership in architecture, urban design and landscape architecture. A core part of this work involves procuring design policy frameworks and guidance. For example:

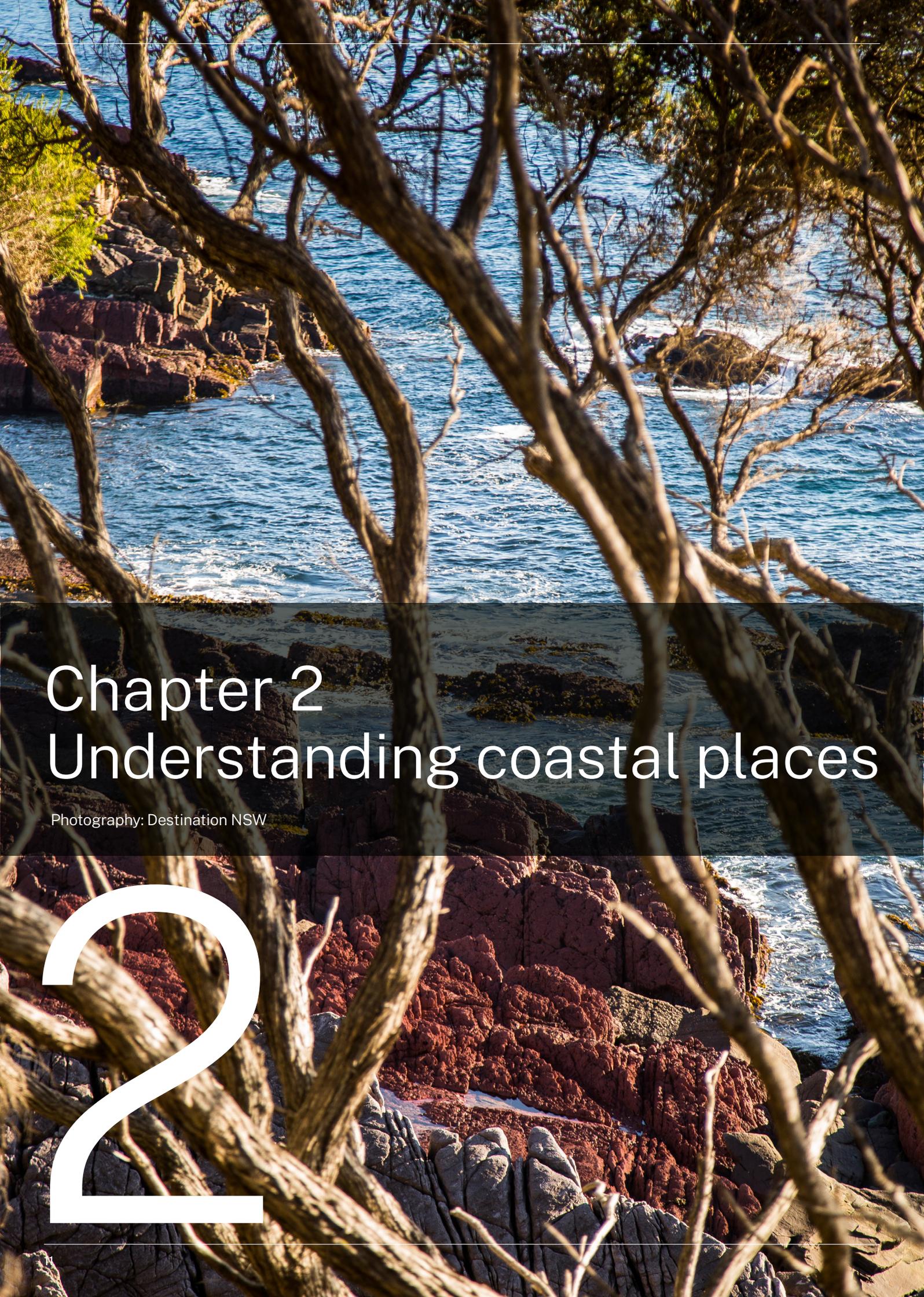
[Better Placed](#) is an integrated design policy that sets out good design for the architecture, public places and environments we want to inhabit now and those we make for the future.

[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 guidance by providing design guidance specific to the natural and built character of NSW coastal places. See Section 2.1 for further details.

Enjoying a coastal walk through Wallarah National Park
– City of Lake Macquarie LGA
(Destination NSW)





Chapter 2

Understanding coastal places

Photography: Destination NSW

2

2.1 Approach to place

All places have different 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 or the sometimes-conflicting forces of natural coastal processes and development
- biodiversity and 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
- 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 requires an understanding of how that place influences, and is influenced by, its context. This is particularly important for coastal places, given that 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.

This chapter explores the common features, issues and opportunities for coastal places in order to inform site analysis, which should take place in the early stages of every project. For guidance on how to undertake site analysis, refer to place analysis guidance from the Government Architect NSW.

Connecting with Country

Consistent with [Connecting with Country – A draft framework for understanding the value of Aboriginal knowledge in the design and planning of places \(PDF 5,581KB\)](#), we all need to take up the challenge of thinking differently, working differently, and making decisions that prioritise Country. Connecting with Country is a response to Indigenous concepts of Country, taking a holistic and Country-led approach to the built environment, guided by Aboriginal people.

The Connecting with Country Draft 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 Draft 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.

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



Coastal walk at Lennox Head
–Ballina Shire LGA

2.2 Key factors shaping coastal places

We should begin to understand a coastal place by engaging with the place's Aboriginal custodians to understand cultural sites and relationships within the landscape.

The key factors shaping coastal places can be grouped in 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 occur at that place.

Natural environment

Coastal zones 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 the natural coastal environment. When considering the built environment, we should consider:

- **connectivity** – the connections among and between settlements, habitat and resources along the coast
- **spatial framework** – the way a settlement's arrangement responds to the coastal landscape and natural hazards and 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.

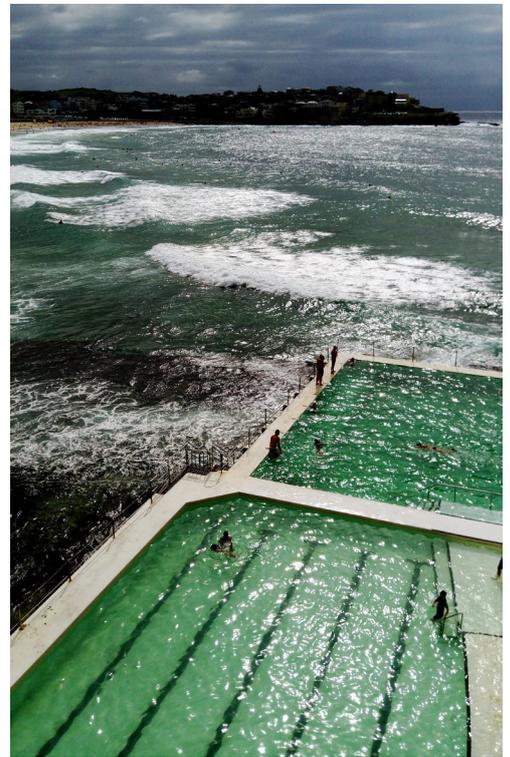
Social and economic context

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, how people associate, 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 with a place.

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

Section 2.3 of these guidelines explores each group of factors in more detail in order to provide a starting point for the site analysis of coastal places. Each category is broken down into the factors listed above.



Ocean pools at Bondi Beach
–Waverley LGA

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 understand that it is 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 requires identifying what is special about a place. It also requires identifying the constraints, issues and challenges your project will need to address in terms of 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 factors generate a place.

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



2.3 Common features of coastal places

Natural environment

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 are constantly changing, which is a core characteristic of coastal areas. The iconic formations of 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 valley
- Basins
- Beaches
- Tidal flats
- Headlands and peninsulas
- Reefs
- Islands
- Coastal dunes
- Bays and inlets
- Harbour entrances

Threats and hazards

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

In this section of the guidelines, * indicates a threat or hazard that may be affected by climate change.



Mangrove public boardwalk
(Destination NSW)

Blue systems

Water-based ecosystems include fresh, brackish and saltwater bodies running from the land to the ocean. 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 lakes and wetlands
- Water catchments
- Intermittently closed and open lakes and lagoons
- Aquatic plants and animals
- Groundwater
- Surf breaks
- Rock and ocean pools
- Intertidal zones
- Coastal processes (e.g. king tides)
- Endangered species and ecological communities

Threats and hazards

- Coastal flooding*
- Tidal inundation
- Structural modification of waterways
- Disturbance to riparian corridors
- Diffuse source water pollution
- Sediment build-up
- Water extraction
- Pollution from commercial and recreational activities
- Pollution from urban areas
- Sewerage leaks
- Legacy infrastructure negatively impacting 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, including national parks, parks, open spaces and green corridors within coastal settlements, provide habitat for native species, offer opportunities for recreation, and contribute to reducing the impacts of climate change.

Characteristics and features

- Culturally important species
- Bushland (national parks and state forests)
- Mangroves and saltmarsh
- Littoral rainforests
- Riparian corridors
- Coastal wetlands
- Dune vegetation
- Terrestrial plants and animals
- Endangered species and 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 and isolation
- Changes to landform, drainage and water extraction
- Loss of food for native animals
- Bushfires*
- Extreme heat*
- East coast lows*
- Monocultural and non-native planting
- Impact of pesticides on native species
- Increased contaminated stormwater run-off impacting surrounding waterways

Built environment

Connectivity

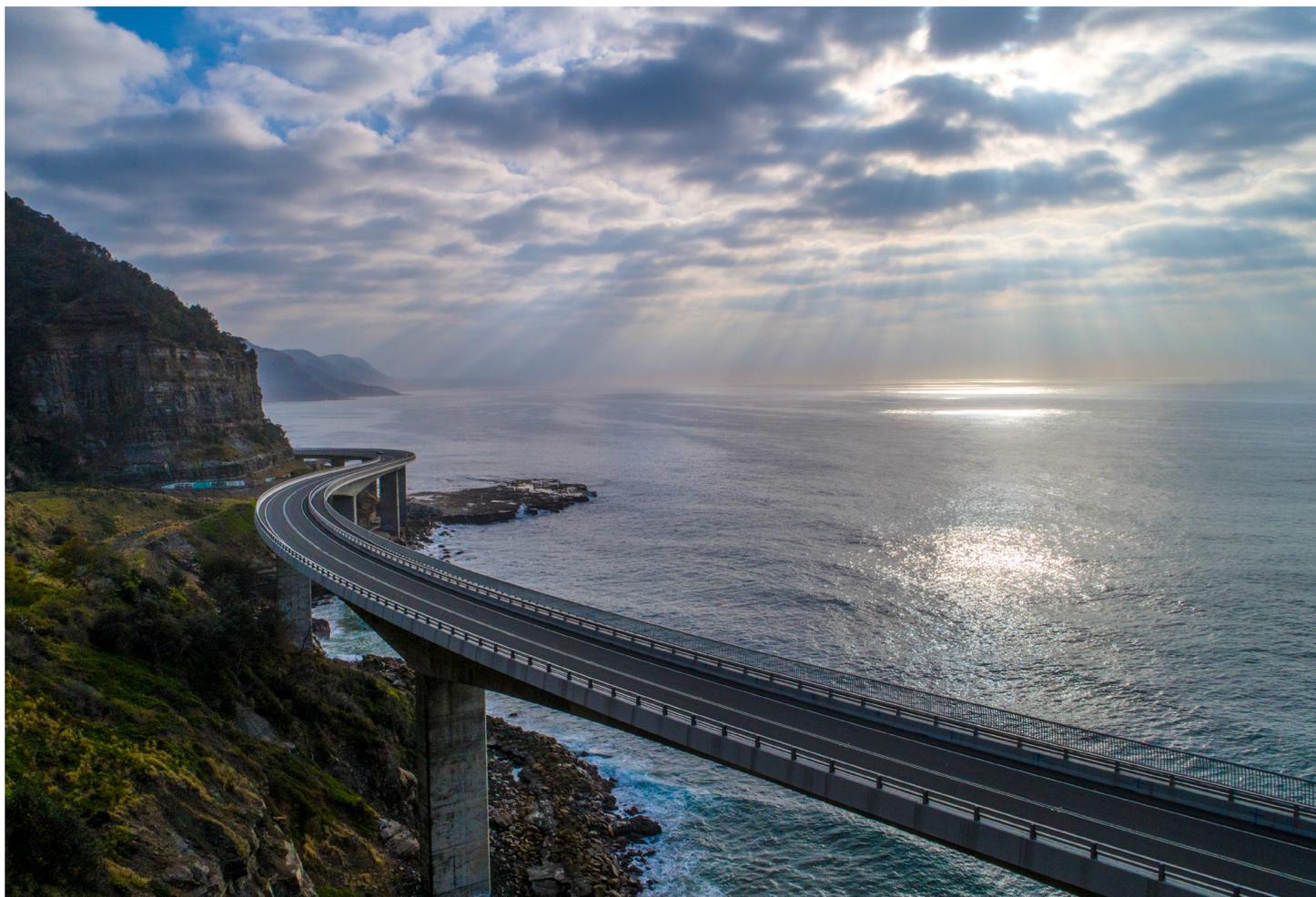
Connectivity along the coast has evolved over millennia. Beginning with migratory tracks and evolving to pathways linking special sites, settlements and resources, connectivity now includes maritime channels, cycleways, roads, rail and air travel. In coastal areas, providing connections to the water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

Characteristics and features

- Traditional Aboriginal access routes
- Animal migration corridors
- Motorways and major arterial roads
- Town centre streets
- Public transportation networks
- Cycling and pedestrian connectivity
- Walkability
- 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 impacting foreshore access*
- Isolated coastal settlements
- Unregulated access to environmentally sensitive areas
- Lack of investment in infrastructure
- Global crises, including pandemic responses
- Increased visitation placing pressure on existing infrastructure
- Inability for Aboriginal peoples to access Country to undertake care activities



Sea cliff bridge, Clifton – Wollongong LGA (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 natural environment more generally. A place's spatial framework is key to its identity and can make it distinct from other coastal places. In addition, the layout of a place is a key factor in determining how well that place 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
- Coastal vulnerability areas

Threats and hazards

- Car-oriented planning impacting non-vehicular movement
- Changing coastal processes impacting the built environment*
- Erosion and inundation of foreshores*
- Suburban sprawl
- Increased frequency and severity of natural disasters*
- New development obscuring spatial hierarchies
- Loss of public space impacting surrounding waterways

Built form

The way buildings and structures relate to their and 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
- Industrial and commercial fabric
- Secondary structures
- Building materials
- Legacy infrastructure
- Massing, height and density
- Local character and construction typologies
- Renaturalised infrastructure
- Stormwater systems
- Coastal protection works
- Sewerage outfalls

Threats and hazards

- Loss of natural environment
- Loss of heritage fabric
- Lack of built form diversity in residential and commercial spaces
- Out-of-character developments (complementary versus detracting development)
- Non-adaptable building types
- Lack of spaces for cultural activities
- Short-term materials and construction methods
- Degradation of coastal infrastructure

Top: Walkability
(Nicole Larkin)

Bottom: Spatial orientation
(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
- Major industries (e.g. fisheries and aquaculture)
- Key businesses
- Economic links with nearby settlements
- Commercial infrastructure
- Local workforce
- Commercial and recreational boating
- Transport infrastructure (e.g. rail and major roads)
- Regional initiatives
- Redundant infrastructure from previous land use

Threats and hazards

- Natural disasters causing disruption to local industries*
- Constraints on Aboriginal business development
- Shifts in the tourism industry
- Seasonal influxes and downturns
- Loss of national and global supply and demand
- Downturns impacting local rate base
- Youth emigration reducing local workforce
- New technologies disrupting traditional industries
- Fragmented market for local businesses

Society and culture

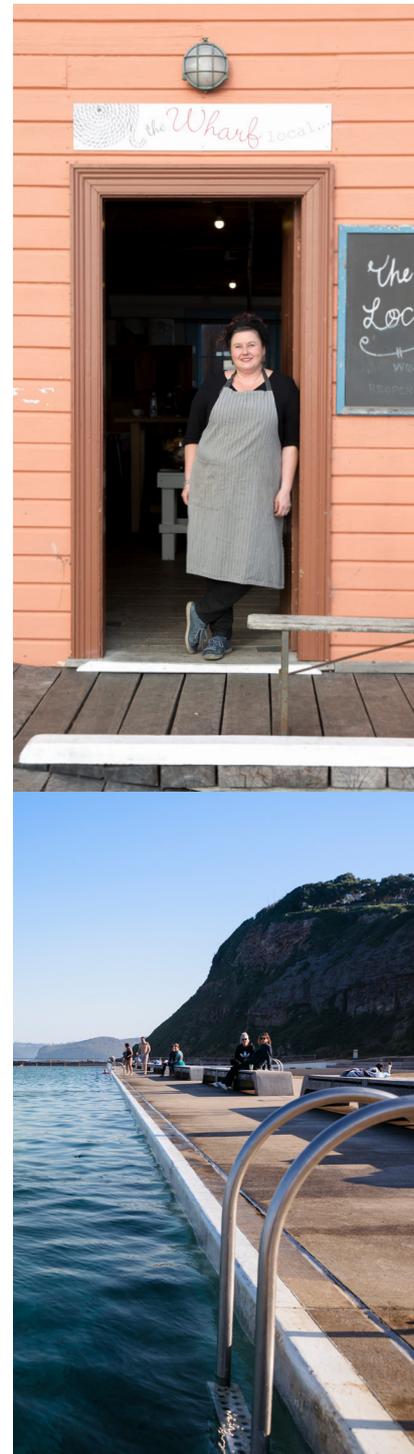
Society and culture refers to the characteristics of a community, how that community gathers, and how they feel about the place and its history. This ties communities together and reinforces their unique identities. Cultural activities are highly diverse and include Aboriginal practices that have evolved from deep understandings 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

Threats and hazards

- Changing demographics shifting community needs
- Housing unaffordability
- Lack of awareness of cultural heritage
- Communities lacking social infrastructure and/or spaces for cultural events
- Externally driven development impacting local identity and activities
- Absentee property owners
- Lack of value placed on historic or cultural landscapes in redevelopment
- Residual unactivated spaces



Top: Local enterprises
Bottom: Recreational infrastructure
(Destination NSW)

Politics and governance

Politics and governance relates 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
- Council community plans and policies
- Federal and state projects and programs
- Partnerships with private, commercial and non-governmental entities

Threats and hazards

- Lack of cultural component in decision-making
- Difficulties keeping communities engaged in decision-making
- Lack of understanding of who to consult with and how to do that effectively and respectfully
- Availability of infrastructure funding
- Availability of state and federal programs
- Balancing federal and state plans and policies with local interests
- Differing time frames across levels of government
- Shortage of emergency response infrastructure and/or funding

Bellingen’s Spring and Autumn plant fairs – Bellingen Shire LGA



2.4 Common pressures and opportunities

When undertaking strategic planning or urban development in the coastal zone, there are common pressures and opportunities. 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.
- Building that is inappropriate in bulk, scale and character with the surrounding coastal environment can undermine the place's scenic values.
- Dispersed commercial, retail and public buildings throughout the settlement can erode the vitality and connectivity of the main street and settlement centre.
- Lack of infrastructure and services can put pressure on growing populations and changing demographics.
- Unsafe and/or degraded pedestrian environments limit active movement within and between settlements.
- Privatisation of streets, open space and foreshores may disconnect or reduce public access to and amenity of the coast.
- Uncontrolled vehicular and pedestrian access can degrade foreshore vegetation and coastal dunes.
- Urban runoff can result in poor water quality in waterways and coastal lakes.
- Transformation of natural landforms can lead to fragmentation of land and water ecosystems.
- Ribbon development and new release areas can reduce the landscape breaks (natural and rural lands) that separate and articulate settlements, affecting the scenic quality of the coast.
- Buildings and infrastructure may be increasingly vulnerable as the frequency and intensity of natural hazards increases as a result of climate change.
- Redundant and legacy infrastructure may negatively impact coastal environments and may limit public access and amenity to areas such as coastal foreshores.

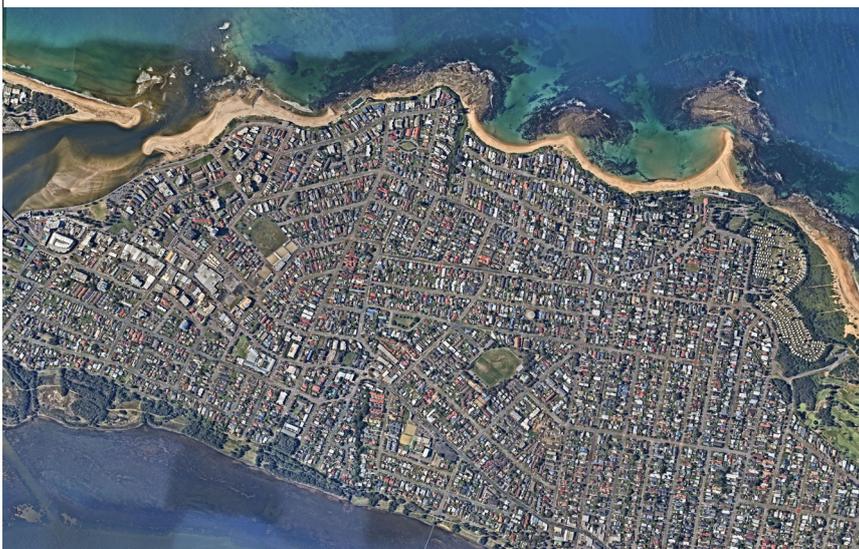


Figure 2. A coastal settlement in NSW displaying many of the common pressures (Nearmap)

The coastal settlement shown in **Figure 2** has very little open space given 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/phenomena or wildlife.
- Urban renewal can provide opportunities to:
 - mitigate or even reduce the risk of coastal hazards through reconsideration or redevelopment of existing developed areas
 - improve public access and diversity of uses along the coastal foreshore and key coastal environmental assets such as coastal wetlands
 - improve building design and construction to increase resilience to natural hazards
 - rehabilitate or re-naturalise degraded coastal assets such as coastal wetlands, coastal floodplains and rocky foreshores
 - integrate nature-based solutions supporting the land and water ecosystems through urban design outcomes.
- Gain mutual benefits and develop economic and cultural synergies with neighbouring coastal and inland settlements.
- Allow for existing small settlements to offer opportunities to create functional urban areas in close proximity to the natural coastal environment, creating opportunities for eco-tourism, artist precincts and migration into regional areas for lifestyle reasons.
- Upgrade public transport, cycle and pedestrian networks in under-serviced coastal places to improve their amenity to current and future residents.
- Restore and enhance access for Aboriginal peoples to undertake care activities.



Boats moored at Ulladulla
–City of Shoalhaven LGA

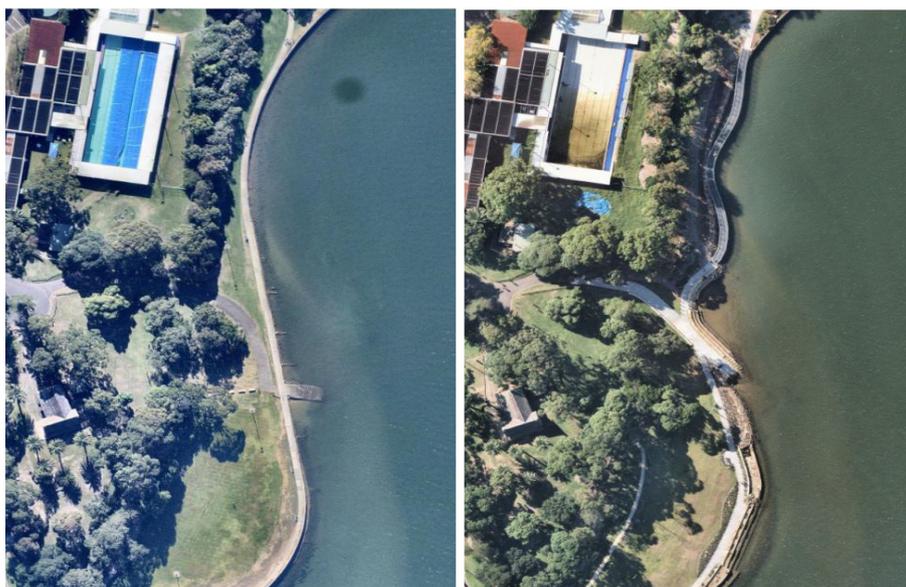
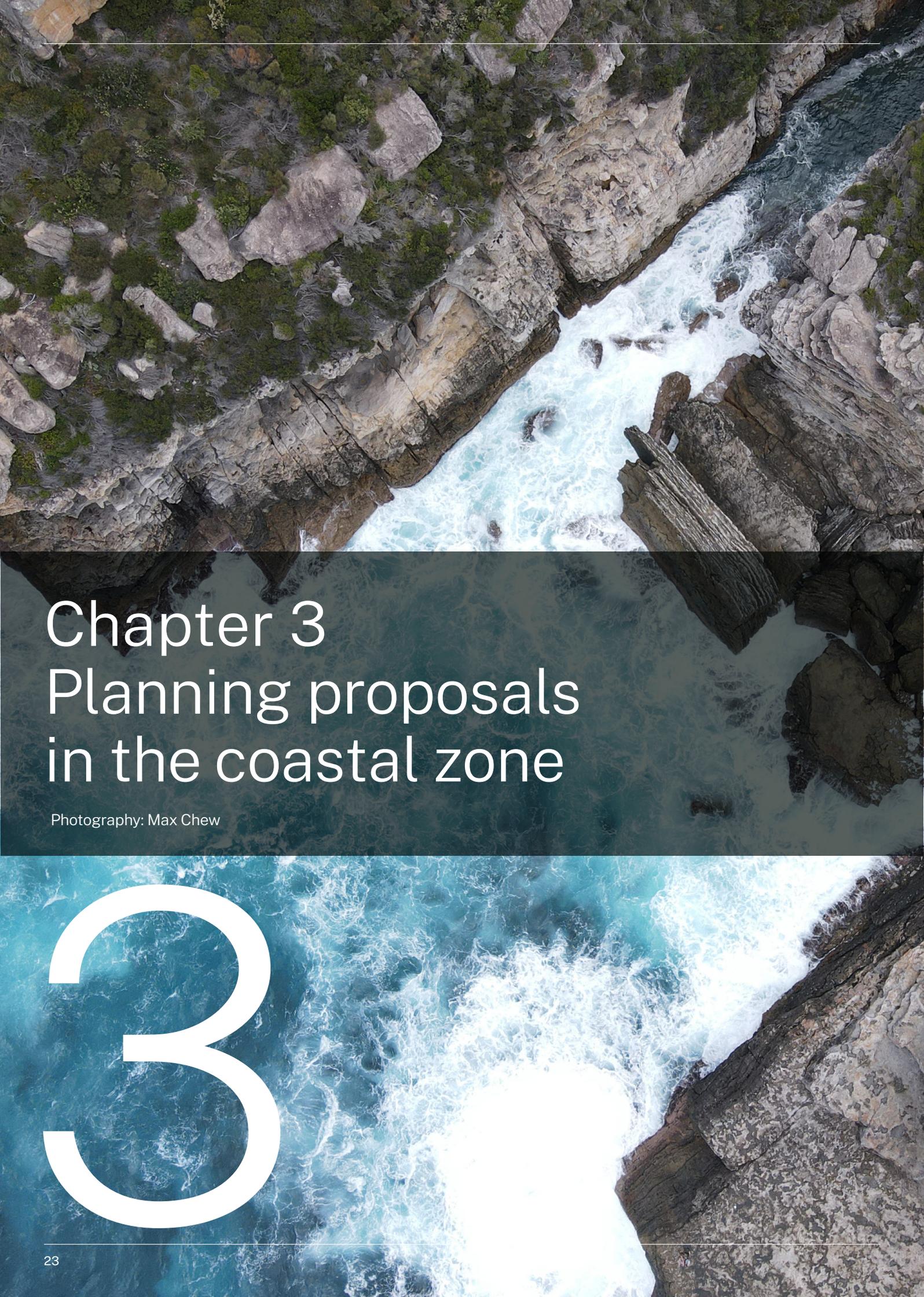


Figure 3. Foreshore revitalisation at Carss Park undertaken by Georges River Council

The foreshore revitalisation at Carss Park shown in **Figure 3** 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 renaturalised 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.

As outlined in the department's [Local Environmental Plan Making Guidelines \(PDF 7,266KB\)](#), a planning proposal explains the intended effect of a proposed local environmental plan (including an amendment to an existing plan) and 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 is:

- giving effect to a regional, district or corridor/precinct plan including any draft released for public comment
- giving effect to a relevant local strategy that has been endorsed by the department, such as the local strategic planning statement
- responding to a change in circumstances, such as the investment in new infrastructure or changing demographic trends that have not been recognized by existing planning controls.

If the strategic merit test is met, the planning proposal must also demonstrate it **has site-specific merit**, having regard to:

- the natural environment (including known significant environmental values, resources or hazards)
- the existing uses, approved uses and likely future uses of land in the vicinity of the land subject to a proposal
- 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.

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

The justification for a planning proposal in the coastal zone must identify whether the planning proposal gives effect to and is consistent with relevant legislation, strategic plans, SEPPs and local planning directions, such as those outlined in section 1.3 of these guidelines.



Top: The Entrance Boathouse

–Central Coast LGA

Bottom: Aerial view of Merimbula Point

–Bega Valley Shire LGA

The planning proposal authority and local plan making authority will assess a proposal against the mandatory requirements and recommendations set out in section 3.2 of these guidelines. The assessment checklist in Appendix 1 helps guide the assessment of whether a planning proposal in the coastal zone gives effect to these guidelines.

Whether it is a council that has initiated a local environmental plan or another person or body directed by the minister, the body responsible for carrying out the process is known as the planning proposal authority.

For council initiated local environmental plans, the planning proposal authority will generally be the council. Refer to Section 3.32 of the Environmental Planning and Assessment Act.

The body who makes the local environmental plan is referred to as the local plan making authority. Refer to Section 3.36 of the Environmental Planning and Assessment Act.

3.2 Key outcomes for planning proposals in the coastal zone

Planning proposals in the coastal zone must demonstrate how the mandatory requirements and recommendations set out in this section have been addressed, to ensure the desired coastal outcomes are achieved. The outcomes, mandatory requirements and recommendations are set out in broad thematic objectives. However, we acknowledge that some may be relevant to more than one objective.

Each planning proposal must identify which, if any, mandatory requirements and recommendations are relevant to the proposal. Where the planning proposal is inconsistent with any of the relevant mandatory requirements or recommendations, those inconsistencies must be explained and justified in the planning proposal. The mandatory requirements are underpinned by statutory obligations, while the recommendations will further assist in achieving the overall desired coastal outcome.

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

A. Protect and enhance coastal environmental values

Outcome A.1 Protect coastal ecosystems

Protect ecological values and functioning, and prevent erosion.

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

Mandatory

- a. Avoid development on undeveloped headlands or significant coastal landforms.
- b. Identify sensitive coastal ecosystems including coastal wetlands or littoral rainforest that may be impacted by development.
- c. Maintain the presence of beaches, rock platforms, coastal dunes and the natural features of foreshores.

Recommended

- a. Use environmental buffers and limit the number of access points to protect coastal ecosystems.
- b. Consider whether the planning proposal is needed or whether it could be more appropriately located elsewhere to minimise impacts on ecology.
- c. Avoid development that will disturb areas of acid sulfate soil.

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.

Source: Coastal Management Act s3(a), s3(g) and s6(2); Local Planning Direction 4.2(3).

Mandatory

- a. Identify coastal wetlands and littoral rainforests and do not increase development or intensify land uses in these areas.

Recommended

- a. Identify and allow for landward migration pathways for endangered species and ecological communities to respond to climate change.
- b. Restrict land uses that impact on the preservation of coastal wetlands and littoral rainforests in their natural state or that limit future opportunities to rehabilitate them.

Outcome A.3 Protect marine parks and aquatic reserves

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

Source: Coastal Management Act s3(m); Marine Estate Management Act s22.

Recommended

- a. Consider if the land uses will negatively impact the environmental, economic, social and cultural values of marine parks and aquatic reserves.
- b. Identify opportunities to improve the health of the marine parks and aquatic reserves.

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

Outcome B.1 Respond to coastal processes

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

Source: Coastal Management Act s3(g); Resilience and Hazards SEPP s2.9(b) and s2.10(1)(b).

Mandatory

- a. In land mapped as coastal vulnerability area, do not allow planning proposals that are likely to alter coastal processes to the detriment of the natural environment or other land.

Outcome B.2 Respond to and protect elements which make the place special

Prevent inappropriate development that may adversely impact foreshores and natural beauty of coastal areas.

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

Mandatory

- a. Integrate development within the natural topography of the site and ensure building type, scale and height responds sympathetically to coastal landforms.
- b. Avoid development that dominates coastal elements, including foreshores, public spaces and other areas of natural beauty.

Recommended

- a. Incorporate water-sensitive urban design into the development footprint to reduce run-off to coastal areas.
- b. Ensure that building heights are appropriate for the nature of the coastal settlement. As a guide:
 - in coastal cities (generally settlements with over 20,000 residents), limit building heights to 7 storeys in the city centre and 3 storeys close to the foreshore.
 - in coastal towns and villages, limit building heights to 4 storeys in town centres and 2 storeys in suburban areas including in foreshore areas.
 - in small coastal settlements with less than 500 residents, limit building heights to 2 storeys including in foreshore areas.

Outcome B.3 Urban development complements coastal scenic values

Urban development does not compete with or erode coastal scenic values, or reduce public access and benefit from them.

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

Mandatory

- a. Limit ribbon development and coastal sprawl wherever possible.

Recommended

- a. Use greenbelts to establish, maintain and articulate separation between settlements.
- b. Promote town centre density and diversity rather than encouraging urban sprawl.
- c. Consider impacts to scenic values and maintain views to significant landmarks.
- d. Provide active transport links along foreshores and between settlements to increase public access and amenity.

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

Outcome C.1 Protect and promote Aboriginal culture and heritage

Protect and respect known and newly revealed Aboriginal sites from the impacts of both development and climate change.

Source: Coastal Management Act s3(c); Designing with Country.

Recommended

- a. Work collaboratively with local Aboriginal people before and throughout the planning proposal process.
- b. With permission and guidance from local Traditional Custodians, emphasise significant features of coastal Country and protect sacred and significant areas through siting of development and consolidating access points.
- c. Ensure built form responds to Country and the Aboriginal cultural landscape.

Outcome C.2 Provide universal public access to significant coastal assets

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

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

Mandatory

- a. Avoid reducing public amenity, access to and use of any beach, foreshore, rock platform or headland, considering both current coastal hazards and projected future coastal hazards.
- b. Avoid development on coastal dunes and foreshore reserves for any purposes other than public purposes, such as surf life-saving club buildings. The use of coastal dunes and foreshore areas for residential purposes is not considered appropriate.

Recommended

- a. Define the boundaries of sites with a public edge - e.g. pedestrian pathway or public laneway.
- b. Prevent the privatisation of open space by ensuring development adjacent to foreshores maintains public access and provides links and connections to other public accessways.

Outcome C.3 Protect public amenity

Protect solar access and recreational use and amenity of public open space and foreshores.

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

Mandatory

- a. Avoid development that will overshadow the beach or public domain by applying the standard that there is to be no overshadowing before 4 pm midwinter and 7 pm Daylight Saving Time.

D. Support sustainable coastal economies

Outcome D.1 Support industries that depend on the coast

Protect and enhance key coastal industries such as tourism, boating, port and wharf facilities and depots, and recreational fishing activities.

Source: Coastal Management Act s3(d); Biodiversity and Conservation SEPP 2021 s10.21.

Recommended

- a. Protect and enhance essential facilities such as access ramps and jetties for key coastal industries needing waterfront access.
- b. Identify opportunities to increase and enhance public access to the foreshore where this does not interfere with those industries.
- c. Avoid land use changes that will result in negative impacts on existing key coastal industries.

Outcome D.2 Facilitate green infrastructure

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

Source: Marine Estate Management Strategy 2018 Initiative 2; Greener Places.

Recommended

- a. Encourage new coastal settlements to maintain or improve foreshore access and connections to existing or new networks of public and open spaces, including waterways, riparian areas, bushland, parks and tree canopy.

E. Support sustainable coastal economies

Outcome E.1 Ensure public safety and prevent risks to human life

Prioritise public safety when locating development, considering what infrastructure is available to help manage risk.

Source: Coastal Management Act s3(f), s3(i) and s7; Resilience and Hazards SEPP s2.12.

Mandatory

- a. Do not allow development that is likely to cause increased risk of coastal hazards on that land or other land.

Recommended

- a. Consolidate development in areas with little or low exposure to current and projected future natural hazards.
- b. Consider whether the proposal has adequate measures/infrastructure to manage risk to life, public property and safety from coastal hazards, without relying on emergency responses, particularly during periods of peak demand.

Outcome E.2 Account for natural hazard risks

Understand and address the natural hazard risks that may impact development.

Source: Coastal Management Act s3(f); Local Planning Directions 4.2(2), 4.1 and 4.3.

Mandatory

- a. Identify areas on and adjacent to the proposal that are affected by current or future coastal hazards.
- b. Account for potential interaction between coastal hazards and other natural hazards, including flooding, bushfires, landslip and heatwaves.
- c. Do not enable increased development or a more intensive land use in a coastal vulnerability area identified in the Resilience and Hazards SEPP or on any land identified as affected by a current or future coastal hazard.

Recommended

- a. Ensure land use planning considers present and future natural hazards by following the Strategic Guide to Planning for Natural Hazards prepared by the Department.

Outcome E.3 Account for climate change

Consider current and future conditions when planning for development.

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

Recommended

- a. Consider a 100-year planning horizon under up-to-date climate change projections for shoreline retreat and coastal inundation, and the full range of sea-level rise projections, and plan for corresponding foreshore setbacks. Recognise that beyond 2100, sea level is projected to continue to rise for centuries.

Outcome E.4 Provide sustainable defences to coastal hazards

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

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

Recommended

- a. Reduce exposure to coastal hazards by restoring or enhancing natural defences, including coastal dunes, vegetation and coastal wetlands where suitable.
- b. If natural defences are not possible, avoid actions to reduce exposure to coastal hazards that will significantly degrade:
 - biological diversity and ecosystem integrity
 - ecological, biophysical, geological and geomorphological coastal processes
 - beach and foreshore amenity and social and cultural values.

Outcome E.5 Protect essential infrastructure

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

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

Recommended

- a. Avoid locating essential infrastructure in areas that are highly exposed to coastal hazards.
- b. Draw on the knowledge of local Aboriginal land-management experts and emergency management agencies on the strategic placement of access routes and other essential infrastructure.

Outcome E.6 Manage legacy issues through land use change and avoid creating new legacy issues

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

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

Recommended

- a. Ensure the proposal will not require coastal management interventions to remain viable over its expected lifespan.
- b. Consider the legacy impacts of the proposal and whether the proposed land uses or development will cause a burden on future generations.
- c. Consider whether legacy impacts and infrastructure can be removed or reduced through the proposed land use change.

Chapter 4

Urban design guidance for the coastal zone

Photography: Destination NSW





**Sun setting over Wagonga Inlet,
Narooma**
–Eurobodalla Shire LGA
(Destination NSW)

4.1 Overview

The urban design 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 and district plans
- local strategic planning statements
- master plans
- 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 gives effect to these objectives will align with best-practice urban design in the coastal zone. Each objective is accompanied by a list of suggested strategies that outline how a design might achieve the objective. Note that these lists of strategies are far from exhaustive or applicable under all circumstances, but just a starting point for design ideas.

This guidance complements other existing NSW Government publications. The Urban Design Guide for Regional NSW provides detailed guidance on matters relevant to regional areas, such as revitalising town centres, as well as further guidance on best practice urban design processes.

The Coastal Design Guidelines are to be used in conjunction with the Urban Design Guide for Regional NSW. They provide design objectives and strategies that are specific to coastal areas in NSW.

The assessment checklist in **Appendix 2** is intended to help guide the assessment of whether a design meets the objectives contained 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

- a. Site and orientate structures to reinforce natural coastal landform.
 - b. Account for natural coastal processes and the changing nature of the landform under projected climate change impacts.
 - 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. Prioritise the ecological integrity of the foreshore and headlands over creating views and outlook from private properties.
-

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

- a. Approach impacts on aquatic vegetation and sensitive waterways in this order: avoid, mitigate or offset.
- b. Support and incorporate water-sensitive urban design into development activities within coastal environment areas.
- c. Identify and protect sensitive downstream environments such as marine parks and aquatic reserves.
- d. 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).
- e. Remediate legacy infrastructure that may be negatively impacting coastal waterways.



Top: Ben Boyd National Park, Green Cape

–Bega Valley Shire LGA
(Destination NSW)

Bottom: Barrenjoey Lighthouse Walk, Palm Beach

– City of Newcastle LGA
(Destination NSW)

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

- a. Minimise disturbance to sensitive coastal ecosystems by grouping structures and providing common access points (such as coastal walkways).
- b. Avoid and minimise impacts on areas of high biodiversity value using the tools such as (but not limited to) those under the Biodiversity Offsets Scheme.
- c. Restore, protect and enhance sensitive coastal ecosystems, such as intertidal foreshores, coastal wetlands, littoral and riparian habitats.
- d. Provide vegetated setbacks and clear entry points to coastal environments to protect coastal vegetation and encourage non-vehicular access.
- e. Identify and plan for landward migration pathways for endangered species and ecological communities including species and ecosystems with cultural significance for local Aboriginal communities.
- f. Consider connecting neighbouring areas of aquatic vegetation (such as seagrass and mangrove communities).

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

- a. Maintain the presence of beaches, coastal dunes and the natural features of foreshores.
- b. Encourage filtered views throughout the built environment to reinforce the presence of coastal landforms.
- c. Use planting to connect habitat, water systems and settlements.
- d. Use planting and landscape design to screen built structures within view of the foreshore.
- e. Preserve urban canopy, wildlife corridors and habitat throughout coastal settlements.

4.2.5 Protect and enhance the environmental, social and cultural values of foreshores, tributaries and other important coastal landforms

- a. With permission and guidance from local Traditional Custodians, emphasise significant features of coastal Country and protect sacred and significant areas through siting and consolidating access points.
- b. Restore the natural characteristics of intensive-use foreshore areas.
- c. Consolidate pedestrian and vehicular entries to protect sensitive coastal ecosystems.
- d. Naturalise drainage patterns, channels and overland flow to increase civic amenity, improve environmental connectivity and restore ecosystems.
- e. Minimise or elevate road crossings and walkways over waterways and water bodies.

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

- a. Engineer and naturalise riparian corridors to support coastal processes and mitigate weather events.
- b. Site infrastructure and structures (for example, foreshore facilities) to reduce environmental impact and permit natural tidal flows, propagation of marine life and longshore drift.
- c. Encourage productive native planting to promote the effective management of coastal dunes.
- d. Improve the absorption and filtration capacity of riparian and littoral lands (for example, encourage vegetated swales and pervious surfaces).



Figure 4. Built structures along the coast

In **Figure 4**, filtered views through the built environment ensure the natural environment is well integrated. The planting also screens the built structures from view from the foreshore and prioritises the ecological integrity of the foreshore area. Minimal hard built structures in the foreshore area provides potential for landward migration of sensitive coastal ecosystems.

4.3 Design guidance for the built environment

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

- Use building type, scale, height and aspect to reinforce coastal landforms, waterscapes and bushland (for example, keep building mass below canopy and ridge lines).
- Orient streets and structures towards significant features of the coastal environment.
- Protect and enhance view corridors to and from the foreshore, water bodies and natural features.
- Create built form that responds to, connects with and celebrates the cultural heritage of coastal Aboriginal peoples.
- Use materials that are resilient and sustainable and that weather well in coastal environments.

4.3.2 Ensure connectivity through and between coastal places

- Create continuous coastal connectivity (for example, by using natural pathways and boardwalks).
- Ensure local connectivity networks link transport nodes, settlement centres and significant coastal features.

- Design walkable access ways and roads in response to significant coastal landforms and foreshore areas.
- Create transport links between settlements and significant coastal features.
- Link open space along urban narratives (for example, coastal walks, songlines, heritage trails).

4.3.3 Ensure civic amenity and diverse uses throughout the built coastal environment

- Prioritise walking (including all forms of equitable access), cycling and public transport over movement and parking for private vehicles along coastal foreshores.
- Separate pedestrian and cycle paths in high-use foreshore areas and keep these separate from busy roads.
- Protect the character of the town centre and foreshore access roads by restricting development fronting onto them.
- Where vehicular traffic terminates, ensure pedestrian and cycle movement can continue where appropriate to provide universal access to the coastal environment.



Top: Enjoying a morning surf at Angourie Point Beach

– Clarence Valley LGA
(Destination NSW)

Bottom: Couple walking along Stockton Beach

– City of Newcastle LGA
(Destination NSW)



Figure 5. Creating resilient design in coastal places

The structure in **Figure 5** needs to be located close to the foreshore in an area that may be exposed to coastal hazards in the future. To improve the resilience of the design, the structure is elevated and relocatable. The surrounding area is highly vegetated to help prevent erosion.

4.3.4 Create spatial frameworks that are resilient to coastal hazards

- a. Site development away from coastal hazards and account for projected climate change impacts matched to the life of the building. Ideally, site development outside coastal vulnerability areas.
- b. Ensure siting, design, construction and operational decisions reduce exposure to risks from coastal hazards.
- c. If taking action to reduce exposure to coastal hazards causes increased erosion of the beach or adjacent land, provide for the restoration of the beach or land adjacent to the beach.
- d. Implement temporary, seasonal and low-impact uses in areas subject to long-term future hazards, maintaining land in public ownership.
- e. Instead of reclaiming land or hard barriers, create re-naturalised zones to adapt to coastal transformations.
- f. Locate accommodation and facilities for vulnerable communities away from areas highly exposed to coastal hazards.
- g. Prioritise actions that support the continued functionality of essential infrastructure during and immediately after a coastal hazard emergency.



Eurobodalla Shire LGA (Destination NSW)

4.3.5 If structures are proposed to be located in areas prone to coastal and other natural hazards, ensure that they are adaptable and transformable.

- a. In coastal vulnerability areas, ensure that building or works are engineered to withstand current and projected coastal hazards for the design life of the building or works.
- b. Ensure that infrastructure design uses appropriate climate-resilient materials and/or 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).
- c. Build and site structures appropriate to risk hazard timelines, encouraging design that is modular, detachable and relocatable.
- d. In high-risk areas, upgrade or remove structures to protect life and property.

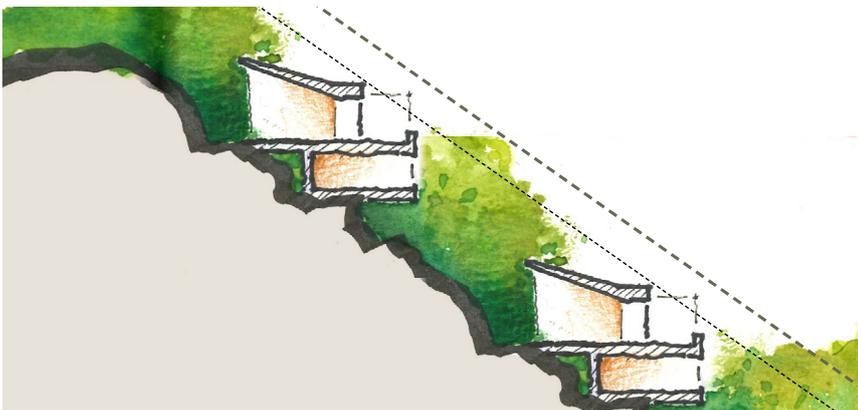


Figure 6. Using building design to reinforce the beauty of coastal places

In **Figure 6**, to reinforce the natural beauty of this coastal area, the building mass is kept below canopy ridgelines so that the natural environment dominates the area. The structures are oriented towards the foreshore below to enhance views of the ocean.

4.4 Design guidance for the social and economic context

4.4.1 Support and reinforce coastal industries and enterprises

- a. Avoid any development-related impacts on existing key coastal industries, such as fisheries, aquaculture and boating.
 - b. Protect essential infrastructure for lease-based businesses, such as infrastructure adjoining estuaries/bays, pipeline access for hatcheries and processing facilities.
 - c. Facilitate the transition of coastal economies in alignment with climate change and adaptation objectives.
 - d. Support adaptive re-use of redundant maritime or industrial infrastructure along coastal foreshores.
 - e. Support the changing demographics and economics of coastal areas by providing a diverse offering of housing types and scales of commercial and retail spaces.
 - f. Enhance economic interdependencies between coastal communities (for example, by creating a collection of distinct tourist destinations).
-

4.4.2 Encourage sustainable, productive use of the natural coastal environment

- a. Maintain sustainable access for recreational and commercial fishing, including boat maintenance facilities.
 - b. Provide education opportunities associated with iconic local industries, such as aquaculture.
 - c. Incorporate local environmental and cultural skills into built outcomes (for example, murals by local artists or a living breakwater propagated by oyster farmers).
 - d. Deliver social infrastructure to support natural assets (such as public toilets).
 - e. Provide access to amenity in significant natural areas (for example, surf craft storage racks, showers and stairways).
 - f. Use environmental remediation as a local attraction (for example, remediated land converted into coastal wetlands with boardwalks).
-

4.4.3 Ensure coastal infrastructure delivers civic space and community assets

- a. Maintain foreshore and setback zones in public ownership.
 - b. Provide for universal access to coastal infrastructure (for example, upgrade paths along breakwaters 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. Implement high-quality urban amenity and recreational infrastructure (for example, changing facilities, bicycle and surf craft racks, and seating along coastal walkways).
 - e. Provide management infrastructure to support and enable community stewardship of coastal places (for example, equipment storage for surf lifesaving, bushcare or community garden groups).
-



Kiama Farmer's Market –Kiama LGA (Destination NSW)

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

- a. Enable Traditional Custodians to implement traditional Aboriginal land management practices of coastal areas.
- 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, headlands and beaches).
- c. Where appropriate, work with Traditional Custodians to identify and emphasise culturally significant coastal places in a way that celebrates and facilitates ongoing cultural connection and practice.



Burrewarra Point, South Coast, NSW – Destination NSW

4.4.5 Implement measures to ensure that there are appropriate responses to, and management of, anticipated coastal processes and current and future coastal hazards

- Develop strategies and plans to support adaptation pathways for existing and proposed development in areas exposed to current and projected coastal hazards. Adaptation strategies should consider hazard avoidance, managed retreat, accommodation, protection and loss acceptance.
- For existing structures within foreshore setback areas, develop plans for management that minimises the impact on natural and cultural values, as well as expense to the community.
- Support greater public awareness, education and understanding of coastal processes and management actions.
- Embed community consultation into the design development process, establishing clear opportunities for continued engagement.

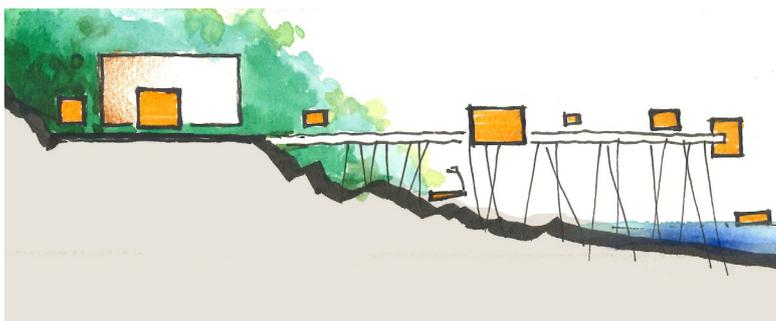


Figure 7. Remediating legacy infrastructure to provide civic space and economic opportunity

The pier in **Figure 7** was formerly used by industry, but has since become redundant. It has been revitalised as a high-quality civic space, providing public access to foreshore areas and space for temporary businesses during peak periods.



Figure 8. Embedding Aboriginal cultural narratives into settlement layout

With the consent of the Traditional Custodians of the area, the settlement in **Figure 8** 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.

Resources

Culture and heritage

- [The Burra Charter](#) – the Australia ICOMOS Charter for Places of Cultural Significance, Australia International Council on Monuments and Sites (2013)
- [Draft Connecting with Country \(PDF 5,581KB\)](#), Government Architect NSW 2020
- [Designing with Country \(PDF 1,018KB\)](#), 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 Cultural Heritage Management Plan \(PDF 14MB\)](#), Tweed Shire Council (2018)

Environmentally sensitive design

- [Greener Places](#), Government Architect NSW (2020)
- [Blueprint for Living Cities: Policy to Practice](#), National Green Infrastructure Network (2017)
- [NSW Coastal Management Manual](#), Office of Environment and Heritage (2018)
- [Urban Green Cover in NSW – Technical Guidelines \(PDF 1.49MB\)](#), Office of Environment and Heritage (2015)
- [Water sensitive urban design guideline](#), NSW Roads and Maritime Services (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)



Top: Pelicans and seagulls at dawn in Wagonga Inlet, Narooma
–Eurobodalla Shire LGA (Destination NSW)
Bottom: Woman enjoys a walk at Fingal Head Beach
–Tweed LGA (Destination NSW)

General urban design guidance

- [Better Placed](#), Government Architect NSW (2017)
- [Urban Design for Regional NSW – Design Guide \(PDF 10,123KB\)](#), Government Architect NSW (2020)
- [Practitioners 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 2020 \(PDF 13.6MB\)](#), NSW Roads and Maritime Services (2020)
- [Siting and design guidelines for structures on Victorian coast](#), Department of Environment, Land, Water and Planning, VIC (2020)

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)
- [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)
- [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)
- [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 Design (name currently in draft), Institute of Public Works Engineering Australasia (2018)
- [Climate Change Adaptation Guidelines in Coastal Management and Planning](#), 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](#), Engineers Australia (2017)

Glossary

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

Active transport: transport that is human-powered, such as walking or cycling.

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

Coastal dune: 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 flooding: flooding of low-lying areas by ocean waters caused by a higher than normal sea level.

Coastal hazard: defined in the *NSW Coastal Management Act 2016* to mean the following: 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 inundation: occurs when a combination of marine and atmospheric processes raises the water level at the coast above normal elevations causing land that is usually 'dry' to become inundated by 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: 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 with their shape constantly changing in response to processes such as alongshore sediment transport, tidal flows, storms and catchment flooding.

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

Coastal protection works: defined in the *NSW Coastal Management Act 2016* as a) beach nourishment b) 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 wetland: 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, sedgeland, brackish and freshwater swamps and wet meadows.

Coastal zone: 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.

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

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

Ecologically sustainable development: 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: 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: the wearing away of land by the action of natural forces. On a beach, erosion is the carrying away of beach material by wave action, tidal currents, littoral currents, or by deflation.

Estuary: 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.

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

Floodplain: a flat tract of land bordering a river, mainly in its lower reaches, and consisting of alluvium deposited by the river. It is formed by the sweeping of the meander belts downstream, thus widening the valley, the sides of which may become some kilometres apart. In time of flood, sediment is deposited along the valley banks and plains. The term is usually synonymous with 100-year floodplain.

Hazard: 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): coastal lakes and lagoons 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 infrastructure: infrastructure relating to a previous land use that is no longer in use and, in general, not directly relevant to the present activities on site.

Littoral rainforests: a closed forest ecological community recognised by its close proximity to the ocean (generally less than 2 kilometres) and closed canopy (with approximately 70% of the sky 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, refers to the sediment moved along a coastline under the action of wave-induced longshore currents.

LGA: a local government area.

Riparian: pertaining to the banks of a body of water, such as an estuary.

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

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

Sensitive coastal ecosystems: used in these guidelines to refer to any coastal ecosystem that is vulnerable to impacts from human activities and requires an enhanced level of protection and care.

Shoreline recession: a continuing landward movement of the shoreline; or a net landward movement of the shoreline over time.

Threat: in the coastal management context, a process or activity which 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.

Tidal inundation: 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 due to longer-term sea level rise.

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

Water-sensitive urban design: water cycle management within the built environment that seeks to replicate natural processes in the treatment of water.

For additional definitions related to the coastal zone, see the [Coastal Management Glossary \(PDF 254KB\)](#).

Appendix

Once finalised, the checklists in this appendix will be available in a printable format.

Appendix 1: Assessment checklist for planning proposals

Requirement/recommendation	Applicable to planning proposal (Y/N)	Planning proposal is consistent with Guidelines (Y/N) If No, provide explanation/justification for inconsistency
Mandatory requirement		
A.1a Avoid development on undeveloped headlands or significant coastal landform.		
A.1b Identify sensitive coastal ecosystems including coastal wetlands or littoral rainforest that may be impacted by development.		
A.1c Maintain the presence of beaches, rock platforms, coastal dunes and the natural features of foreshores.		
A.2a Identify coastal wetlands and littoral rainforests and do not increase development or intensify land uses in these areas.		
B.1a In land mapped as coastal vulnerability areas do not allow planning proposals that are likely to alter coastal processes to the detriment of the natural environment or other land.		
B.2a Integrate development within the natural topography of the site and ensure building type, scale and height responds sympathetically to coastal landforms.		
B.2b Avoid development that dominates coastal elements, including foreshores, public spaces and other areas of natural beauty.		
B.3a Limit ribbon development and coastal sprawl wherever possible.		

Requirement/recommendation	Applicable to planning proposal (Y/N)	Planning proposal is consistent with Guidelines (Y/N) If No, provide explanation/justification for inconsistency
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Mandatory requirement

C.2a Avoid reducing public amenity, access to and use of any beach, foreshore, rock platform or headland, considering both current coastal hazards and projected future coastal hazards.

C.2b Avoid development on coastal dunes and foreshore reserves for any purposes other than public purposes, such as surf life-saving club buildings. The use of coastal dunes and foreshore areas for residential purposes is not considered appropriate.

C.3a Avoid development that will overshadow the beach or public domain by applying the standard that there is to be no overshadowing before 4 pm midwinter and 7 pm Daylight Saving Time.

E.1a Do not allow development that is likely to cause increased risk of coastal hazards on that land or other land.

E.2a Identify areas on and adjacent to the proposal that are affected by current or future coastal hazards.

E.2b Account for potential interaction between coastal hazards and other natural hazards, including flooding, bushfires, landslip and heatwaves.

E.2c Do not enable increased development or a more intensive land use in a coastal vulnerability area identified in the Resilience and Hazards SEPP or on any land identified as affected by a current or future coastal hazard.

Requirement/recommendation	Applicable to planning proposal (Y/N)	Planning proposal is consistent with Guidelines (Y/N) If No, provide explanation/justification for inconsistency
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Recommendation

A.1a Use environmental buffers and limit the number of access points to protect coastal ecosystems.

A.1b Consider whether the planning proposal is needed or whether it could be more appropriately located elsewhere to minimise impacts on ecology.

A.1c Avoid development that will disturb areas of acid sulfate soil.

A.2a Identify and allow for landward migration pathways for endangered species and ecological communities to respond to climate change.

A.2b Restrict land uses that impact on the preservation of coastal wetlands and littoral rainforests in their natural state or that limit future opportunities to rehabilitate them.

A.3a Consider if the land uses will negatively impact the environmental, economic, social and cultural values of marine parks and aquatic reserves.

A.3b Identify opportunities to improve the health of the marine parks and aquatic reserves.

B.2a Incorporate water-sensitive urban design into the development footprint to reduce run-off to coastal areas.

Requirement/recommendation	Applicable to planning proposal (Y/N)	Planning proposal is consistent with Guidelines (Y/N) If No, provide explanation/justification for inconsistency
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Recommendation

B.2b Ensure that building heights are appropriate for the nature of the coastal settlement. As a guide:

- in coastal cities (generally settlements with over 20,000 residents), limit building heights to 7 storeys in the city centre and 3 storeys close to the foreshore.
- in coastal towns and villages, limit building heights to 4 storeys in town centres and 2 storeys in suburban areas including in foreshore areas.
- in small coastal settlements with less than 500 residents, limit building heights to 2 storeys including in foreshore areas.

B.3a Use greenbelts to establish, maintain and articulate separation between settlements.

B.3b Promote town centre density and diversity rather than encouraging urban sprawl.

B.3c Consider impacts to scenic values and maintain views to significant landmarks.

B.3d Provide active transport links along foreshores and between settlements to increase public access and amenity.

C.1a Work collaboratively with local Aboriginal people before and throughout the planning proposal process.

C.1b With permission and guidance from local Traditional Custodians, emphasise significant features of coastal Country and protect sacred and significant areas through siting of development and consolidating access points.

C.1c Ensure built form responds to Country and the Aboriginal cultural landscape.

C.2a Define the boundaries of sites with a public edge -e.g. pedestrian pathway or public laneway.

Requirement/recommendation	Applicable to planning proposal (Y/N)	Planning proposal is consistent with Guidelines (Y/N) If No, provide explanation/justification for inconsistency
Recommendation		
C.2b Prevent the privatisation of open space by ensuring development adjacent to foreshores maintains public access and provides links and connections to other public accessways.		
D.1a Protect and enhance essential facilities such as access ramps and jetties for key coastal industries needing waterfront access.		
D.1b Identify opportunities to increase and enhance public access to the foreshore where this does not interfere with those industries.		
D.1c Avoid land use changes that will result in negative impacts on existing key coastal industries.		
D.2a Encourage new coastal settlements to maintain or improve foreshore access and connections to existing or new networks of public and open spaces, including waterways, riparian areas, bushland, parks and tree canopy.		
E.1a Consolidate development in areas with little or low exposure to current and projected future natural hazards.		
E.1b Consider whether the proposal has adequate measures/infrastructure to manage risk to life, public property and safety from coastal hazards, without relying on emergency responses, particularly during periods of peak demand.		
E.2.a Ensure land use planning considers present and future natural hazards by following the Strategic Guide to Planning for Natural Hazards prepared by the Department.		
E.3a Consider a 100-year planning horizon under up-to-date climate change projections for shoreline retreat and coastal inundation, and the full range of sea-level rise projections, and plan for corresponding foreshore setbacks. Recognise that beyond 2100, sea level is projected to continue to rise for centuries.		

Requirement/recommendation	Applicable to planning proposal (Y/N)	Planning proposal is consistent with Guidelines (Y/N) If No, provide explanation/justification for inconsistency
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Recommendation

E.4a Reduce exposure to coastal hazards by restoring or enhancing natural defences, including coastal dunes, vegetation and coastal wetlands where suitable.

E.4b If natural defences are not possible, avoid actions to reduce exposure to coastal hazards that will significantly degrade:

- biological diversity and ecosystem integrity
- ecological, biophysical, geological and geomorphological coastal processes
- beach and foreshore amenity and social and cultural values.

E.5a Avoid locating essential infrastructure in areas that are highly exposed to coastal hazards.

E.5b Draw on the knowledge of local Aboriginal land-management experts and emergency management agencies on the strategic placement of access routes and other essential infrastructure.

E.6a Ensure the proposal will not require coastal management interventions to remain viable over its expected lifespan.

E.6b Consider the legacy impacts of the proposal and whether the proposed land uses or development will cause a burden on future generations.

E.6c Consider whether legacy impacts and infrastructure can be removed or reduced through the proposed land use change.

Appendix 2: Assessment checklist for urban design

Design objective	Applicable to design (Y/N)	The design is consistent with Guidelines (Y/N) If No, provide explanation/justification for inconsistency
Natural environment		
4.2.1 Base considerations on a hierarchy of landform, then landscape, then built form.		
4.2.2 Protect and enhance water quality, hydrological systems and coastal processes.		
4.2.3 Identify, protect and enhance sensitive coastal ecosystems and endangered ecological communities.		
4.2.4 Ensure that the natural coastal environment is integrated into built coastal environments.		
4.2.5 Protect and enhance the environmental, social and cultural values of foreshores, tributaries and other important coastal landforms.		
4.2.6 Use nature-based solutions as the first option to address environmental challenges, avoiding hard engineering solutions where possible.		
Built environment		
4.3.1 Use built form to reinforce the beauty and character of coastal places.		
4.3.2 Ensure connectivity through and between coastal places.		
4.3.3 Ensure civic amenity and diverse uses throughout the built coastal environment.		
4.3.4 Create spatial frameworks that are resilient to coastal hazards.		
4.3.5 If structures are proposed to be located in areas prone to coastal and other natural hazards, ensure that they are adaptable and transformable.		

Design objective	Applicable to design (Y/N)	The design is consistent with Guidelines (Y/N) If No, provide explanation/justification for inconsistency
Social and economic context		
4.4.1 Support and reinforce coastal industries and enterprises.		
4.4.2 Encourage sustainable, productive use of the natural coastal environment.		
4.4.3 Ensure coastal infrastructure delivers civic space and community assets.		
4.4.4 Acknowledge and protect coastal Aboriginal peoples' spiritual, social, cultural, customary and economic connection to coastal Country.		
4.4.5 Implement measures to ensure that there are appropriate responses to, and management of, anticipated coastal processes and current and future coastal hazards.		

