

Sunshine Coast Council Coastal Management Overview

January 2016 edition





Mayor Mark Jamieson

Mayor's foreword

Our impressive beaches are fundamental to our Sunshine Coast lifestyle, economy and coastal ecosystems. This council recognises that and invests accordingly to ensure these natural assets are well maintained, healthy and enjoyable.

Our vision is for the Sunshine Coast to be 'Australia's most sustainable region'.

Achieving a sustainable coastal environment is a balancing act. We need to manage challenges such as climate change, a growing population and dynamic coastal systems while providing healthy, enjoyable beaches, protecting biodiversity and protecting infrastructure.

Council is responsible for the management of the Sunshine Coast's tidal foreshores, beaches, dunes and coastal parks and has a comprehensive coastal management framework equipped to address existing and future challenges.

We are very appreciative of the great community support network that helps us with the many challenges associated with our coastal foreshores.

This coastal management overview provides an understanding of our natural and built coastal assets and how council will manage those assets now and into the future.



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Healthy, valued and enjoyed coastal reserves and parks are priorities for the Sunshine Coast Council.

Our coast – valued, healthy, enjoyed

Our region's coastline is an impressive combination of natural beaches, dune and tidal ecosystems, coastal parks and coastal infrastructure.

Each and every part of this 130 kilometre coastline adds value to our environment, our lifestyle and our economy.

In 2013, beach related tourism alone contributed \$270 million to the Sunshine Coast economy* and the benefits to our environment and our way of life are immeasurable.

To ensure these valuable coastal assets are protected, healthy and enjoyed, council employs a range of proactive coastal planning, management and maintenance activities.

These activities include:

- actions associated with understanding how our coastline works
- ensuring we have a strategic approach to coastal management
- investing heavily in programs, partnerships and projects that maintain and enhance our coastal environment
- future planning for coastal hazards
- continual improvement of our coastal knowledge in partnership with key stakeholders.

* Raybould et al 2013

The challenges we face as a council and a community are to:

- avoid interference with natural coastal processes where possible
- minimise interference with natural coastal processes where interference is unavoidable
- sustain the economic value of the beaches and coastal parks
- preserve and enhance the natural values of coastal public lands
- implement shoreline erosion management measures as required
- be responsive to new information on coastal hazards and modify coastal management measures as required
- maintain and enhance recreational and community infrastructure while protecting coastal natural resource values
- recognise the importance of cultural heritage and social values of the coastline
- engage with the community on coastal management activities
- ensure the investment in community coastal infrastructure is cost effective.



Community planting, Maroochydore Beach

Our coastal foreshores are ecologically healthy, well-managed assets that underpin our livelihoods and lifestyles.

How does our coastline work?

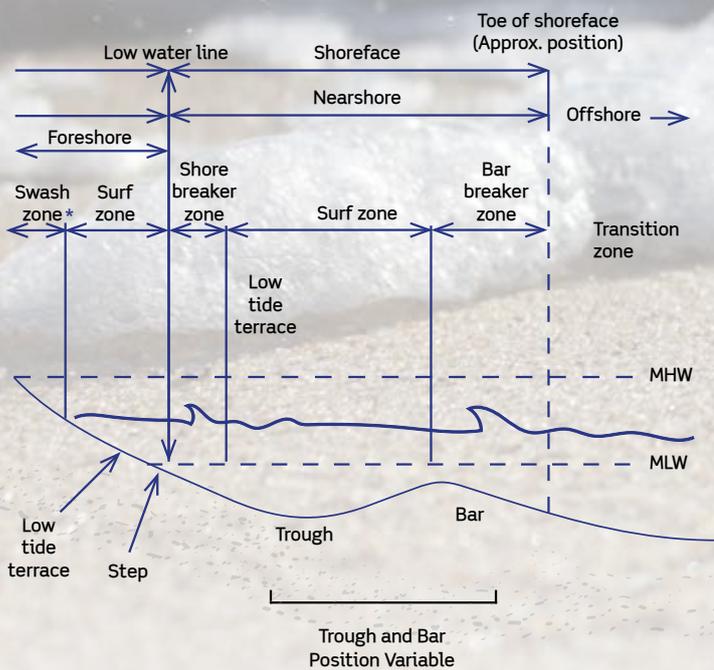
Our coastline is constantly changing, with beaches eroding and building in response to the natural processes that shape them — wind, waves, currents and tides.

These processes maintain the balance of sand between beaches, dunes and near shore sand bars.

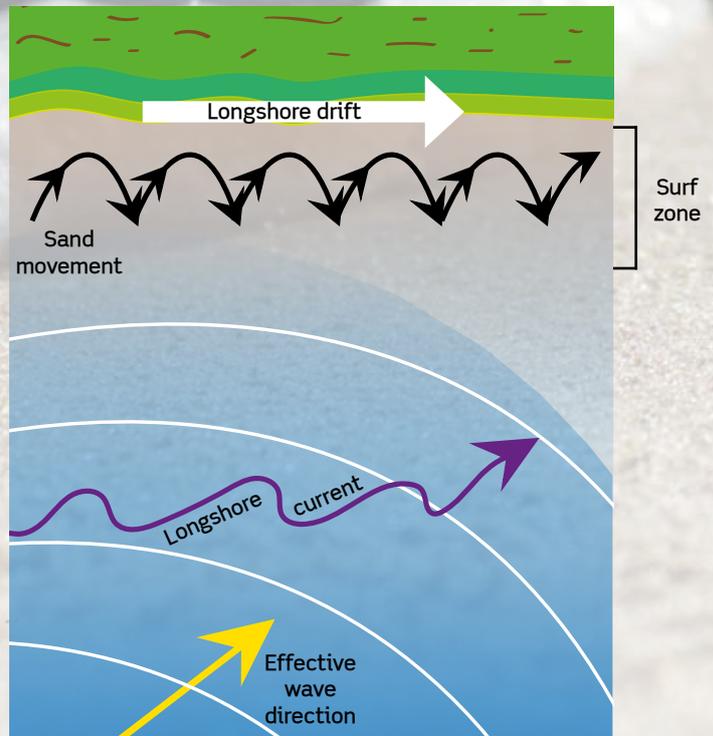
Most of the sand on our beaches comes from the mid-north New South Wales and occurs because of dominant south easterly trade-winds which drive a gradual longshore drift of coastal sands to the north.

During storm events, particularly east coast lows and cyclones, increased sea levels and powerful waves and currents can result in a short-term shift in the balance of sand, known as short-term erosion, from beaches and dunes to the near shore wave break area.

This sand returns to beaches under calmer conditions where it may be blown and contribute to dunes which are stabilised by important coastal vegetation.



Conceptual overview of typical beach profile (source USACE 2008)



Longshore and cross shore processes combine to form a zig-zag pattern of sand movement (IAN image 2013)

Our region's coastal landscapes and biodiversity values are highly regarded and need to be protected, promoted and well-managed, together.

A strategic approach to coastal management

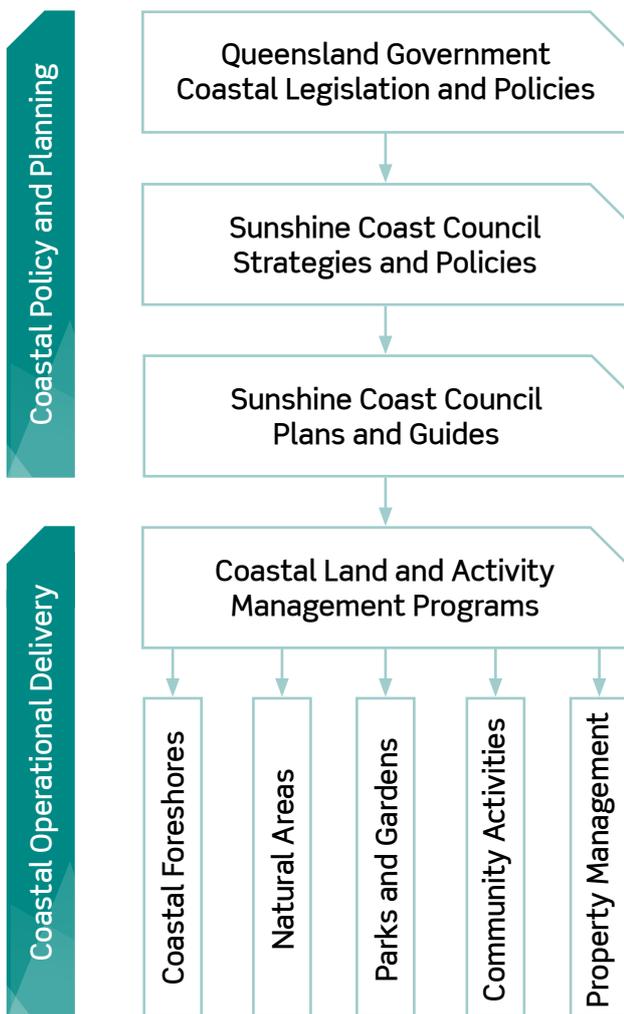
“The Sunshine Coast’s natural coastal ecosystems and processes provide many valuable services including buffering from coastal hazards, nutrient cycling, and climate regulation.”

The *Sunshine Coast Council Corporate Plan 2014-2019* identifies healthy foreshores as a critical component of Council’s vision.

To assist in achieving this vision, the *Sunshine Coast Waterways and Coastal Management*

Strategy outlines key values, challenges and strategic directions to guide future planning and management.

Council is working in partnership with the State Government and community to implement the Strategy, with a focus on achieving long term protection, sustainable use and enjoyment of our coastal foreshores.



Overview of council’s coastal policy framework



Beach nourishment works, Mooloolaba Spit



Installation of geo textile containers at Mooloolaba Spit

The Coast is central to the Sunshine Coast’s culture, sense of place and unique character.

Enhancing our coastal values

Council invests heavily in programs, partnerships and projects that maintain and enhance our coastal environment.

Through its open space programs, council ensures our beaches, natural reserves, foreshore parks and associated infrastructure are clean, well maintained and useable. These amenities are subject to a set of standards, which safely and sustainably service recreation demands, while ensuring a minimal impact on the natural environment – supporting the Sunshine Coast’s natural advantage.

 <p>Bushland conservation and habitat</p>	 <p>Recreation parks, trails and facilities</p>	 <p>Beaches, foreshores, coastal infrastructure and canals</p>	 <p>Lifeguards</p>
<p>Partnerships and education programs to protect and enhance biodiversity assets, pest animal and plant control, natural area reserve network protection, enhancement and management, fire management programs</p>	<p>Design, maintenance and management of Council’s public open space for active and passive recreation, including the coastal path</p>	<p>Dredging and sand replenishment, maintenance of dune fencing, revetment walls, jetties, boat ramps, pontoons, groynes and beach access, canal locks, weirs and pumps</p>	<p>Regular patrolling of beaches to ensure the safety and enjoyment of residents and visitors</p>
 <p>Catchment management</p>	 <p>Local amenity and local laws</p>	 <p>Public health</p>	 <p>Tourism</p>
<p>Working with partners to manage catchment impacts on coastal water quality</p>	<p>Maintaining and regulating local amenity through local laws, regulated parking, community land permits, and management of animals, overgrown land and abandoned vehicles</p>	<p>Protecting public health by managing declared pests, controlling mosquitoes and administering environmental health regulations</p>	<p>Promoting the Sunshine Coast’s beaches and open space networks as part of a world-class destination</p>

The maintenance of these key coastal areas and assets, combined with strategic investment and partnerships, is important for:

- attracting, developing and maintaining a high value tourism, sport and leisure industry
- supporting our enviable lifestyle and providing recreational opportunities
- enhancement and protection of natural values on the coast.

In addition, council places huge value on local community groups, who are important coastal management partners, contributing significant experience, passion and resources to improving our coastal environments and communities. Together these actions combine to enhance our impressive coastal values.

The Sunshine Coast boasts some of the world’s best beaches, offering clean white sand, great water quality and excellent surf breaks.

Planning for coastal hazards

Coastal hazards and climate change are important considerations when planning for the future of our coastal communities, beaches and environment.

These hazards include erosion and inundation (storm tide and sea level rise) and present both current and medium to long-term management challenges for council.

Our natural beaches and dunal systems are more able to cope with coastal hazards so council prioritises the management of risks to safety and high demand beaches, coastal parks and associated infrastructure.

Over time, the frequency of extreme weather events is likely to increase as a result of climate change and other processes. This results in an expected increase in the severity of coastal erosion and storm surge hazards and therefore risks to coastal assets and communities.

Hazard adaptation is likely to involve strategic planning and infrastructure specific responses to address risks to infrastructure and popular beaches.

The Sunshine Coast Council Planning Scheme requires that coastal development considers long-term erosion and inundation hazards. This involves attaining appropriate buffers to environmental areas, and not exposing development to unacceptable impacts from hazards or altered coastal processes.

The Sunshine Coast Council's *Shoreline Erosion Management Plan 2014 (SEMP)* identifies preferred management responses to address public erosion risks over the next ten years. Management actions council is implementing include various combinations of:

- dune management – restoration and revegetation for increased resilience
- beach nourishment, sand relocation and scraping
- groyne, revetments and seawalls.

More specific management plans are informed by the SEM, including the Maroochydore Beach Protection Plan and the Bribie Island-Golden Beach Protection Plan.

Building our knowledge

Council makes continual improvements in its approach to coastal management based on new information and research data.

The development and implementation of council's coastal policies and plans incorporates adaptive management principles to ensure delivery of efficient and effective outcomes.

This commitment requires ongoing investment in planning, implementation, research, monitoring, review and reporting to deliver well maintained coastal foreshores for the Sunshine Coast community.

These types of current and future management activities include:

- sand sourcing for nourishment activities
- ongoing monitoring of coastal foreshores
- coastal hazard adaptation planning
- coastal land management planning
- learning from other coastal communities and their approach to coastal management
- investigation and research of coastal processes, social aspects and economic elements
- exploring coastal permit efficiencies to streamline processes.

Council prioritises hazard protection of high demand beaches, coastal parks and infrastructure.



Growing strong partnerships

“Building and maintaining positive partnerships with communities, industry and government”.

The Sunshine Coast community understandably has a strong interest in coastal public land.

Council recognises this and is committed to establishing a close collaboration between government, business, non-government organisations and the community as part of its approach to coastal management.

Community engagement includes consultation and sharing of information on coastal processes and management activities.

This valuable community work is supported through planning, partnering and supporting the community via a range of community development, civic and cultural programs and grants.

TurtleCare Sunshine Coast

A voluntary organisation protecting marine turtles on Sunshine Coast beaches

Since their ancient ancestors took their first evolutionary step into the oceans, sea turtles have been returning to the land to lay their eggs on beaches around the world.

While this strategy has served them well for over 100 million years, today all sea turtle species are experiencing a range of human-induced impacts that are threatening their continued survival.

The main species nesting on Sunshine Coast beaches are the Loggerhead turtle and, less frequently, the Green turtle.

Given that Australia's eastern population of nesting Loggerheads comprises only around 500 nesting females, the Sunshine Coast population continues to be a small but important sub-population.

TurtleCare Sunshine Coast is a voluntary organisation formed in 2005 in response to an identified need to protect the nests of marine turtles nesting on Sunshine Coast beaches.

TurtleCare volunteers are responsible for the implementation of an ongoing turtle monitoring program for nesting activity on beaches between Golden Beach and Point Cartwright.

Volunteers identify and record species, nesting locations and frequency, protect nests from fox predation and monitor the hatching and emergence success of nests.







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