

'Our Living Coast' Strategy

SUMMARY



Our Living Coast Strategy

The Our Living Coast Strategy provides an understanding of how our coast is being affected by coastal hazards today and how our coast might change in the future under the influence of climate change, including the impacts of sea level rise.

From Stange in the north to Fitzroy River in the south, the Livingstone coast has countless picturesque sandy beaches, coastal townships and offshore islands which makes it an ideal tourist destination and place to live.

Our coastal environments are always changing and being shaped by wind, waves, tides, currents and changing sea levels. Impacts from these natural processes include storm tide inundation, coastal erosion and sea level rise. Referred to as coastal hazards, they can affect our region's natural and built environment, our day to day lives, our community's wellbeing and our economy.

Understanding current and future coastal hazard risks and how they might impact our community means we can proactively plan, prepare and respond to these risks over time.

Livingstone Shire Council prepared the Our Living Coast Strategy using funding provided through the QCoast₂₁₀₀ program.

Purpose

The purpose of the Our Living Coast Strategy is to:

- Provide a strong evidence base for future decision making and a coordinated response for what actions we will take to adapt to and manage coastal hazard risks.
- Provide a framework to guide the management of our coastline. This includes:
 - » infrastructure and asset management;
 - » land use planning;
 - » foreshore management;
 - » nature conservation;
 - » recreation;
 - » cultural heritage values;
 - » public assets;
 - » emergency management.

A community driven plan for a resilient coast

Council has sought to involve the community and a wide range of key stakeholders to provide input and share their experiences on our changing coast and to ensure that the strategy responds to the needs and expectations of our community. This strategy has been developed in consultation with:

- Council representatives (Council technical working group and Councillors);
- Community Reference Group;
- External Stakeholders, including State agencies;
- The broader community.

Living with our changing coast

The Our Living Coast Strategy focuses on the coastal hazards of storm tide inundation and coastal erosion and how these coastal hazards are expected to change under the influence of sea level rise from future climate change. The extent of coastal land potentially impacted by coastal hazards, as well as the consequences of these coastal hazards, are expected to increase into the future.

As part of the process, coastal hazards have been modelled and new updated hazard extent mapping for storm tide inundation, coastal erosion and sea level rise has been prepared for three planning horizons – short term (present day), medium term (around 2050 – a 0.3m sea level rise) and long term (2100 – a 0.8m sea level rise).

The following special places and important infrastructure on our coast are exposed to coastal hazard impacts – today and in the future. A technical risk assessment for the whole of Livingstone Shire identified the following at high or very high risk:



11 segments of important road

multiple coastal hazard impacts, including erosion



7 beaches/dune areas

sea level rise and erosion impacts



11 residential areas + 1 future emerging community areas

mostly erosion but also sea level rise impacts



3 caravan parks

sea level rise and erosion impacts



Natural areas (i.e. islands and national parks)

multiple coastal hazard impacts



Agricultural land in Stange

sea level rise impacts



5 community facilities

mostly erosion but also sea level rise impacts



3 pieces of infrastructure - Emu Park Waste Transfer Station, Stange Coast Guard and local boat ramps

multiple coastal hazard impacts



1 township (Keppel Sands)

coastal erosion impacts

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Pathways for a resilient future coast

The range of adaptation actions included in the strategy support an adaptation pathways approach to respond to coastal hazard risks and impacts over time.

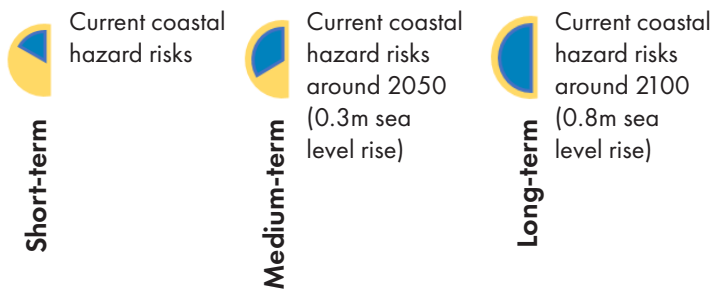
Three themes for adaptation action have been defined for the Our Living Coast Strategy – **Maintain and Improve, Modify, and Planned Transition.**

For each theme, strategic adaptation actions are described and provide a framework for adaptation pathways for:

- Shire-wide responses for the whole Livingstone Shire coast; and
- Targeted responses for specific localities.

To respond to the challenge of not knowing precisely the timing of when coastal hazards may occur or the rate of coastal change, the strategy has adopted a flexible 'pathways' approach. This is a sequence of adaptation action/s (or combination of actions) to be implemented over time in response to observed changes or decision-making points.

Adaptation actions have been prepared to respond to short, medium and long-term risks which are linked to projected sea level rise and indicative coastal hazard extents at three climate timeframes.



Get Involved and have your say!












Our changing coast requires long term action and will affect our community over time. We are seeking your feedback on the Draft *Our Living Coast Strategy* which identifies strategic actions to respond to existing and future coastal hazards.

For more information and to access the Draft *Our Living Coast Strategy* please visit:

[getinvolved.livingstone.qld.gov.au/
livingstone-coastal-hazards-adaption-strategy](http://getinvolved.livingstone.qld.gov.au/livingstone-coastal-hazards-adaption-strategy)

Closing date for submissions is 23 December 2020

Strategic adaptation actions are summarised below:

Maintain and Improve	 Monitor To observe coastal changes and determine if adaptation actions are appropriate or need adjusting.
	 Community Awareness and Education Provide ongoing information and messaging about coastal hazards, risks, monitoring and adaptation actions.
	 Emergency Response Monitoring and early warning systems, including evacuation strategies and community engagement.
	 Ecosystem Management Habitat management programs such as planting of vegetation on dunes and within and around wetlands and waterways.
	 Geotechnical Investigation and Detailed Erosion Study Site-specific geotechnical investigation and detailed erosion studies to better understand natural erosion processes at the beach segment scale.
Modify	 Planning Responses Implementing land use planning responses that are risk appropriate for the location in the coastal hazard area.
	 Coastal engineering (soft) Dune construction, restoration and augmentation, beach nourishment and scraping to protect beaches and foreshore areas.
	 Coastal engineering (hard) Levees/dykes, seawalls/scour protection, groynes and artificial headlands, tide flaps or valves on stormwater pipes and tide gates to protect beaches, foreshores and creek front areas from coastal hazards.
Planned Transition	 Modify infrastructure and hazard resilient design Allow for continued use of infrastructure where the coastal hazard risk is tolerable, but when upgrading/building new assets, the design is to be resilient to or accommodate coastal hazard impacts.
	 Relocate infrastructure Relocate assets, infrastructure and buildings to lower risk areas or outside of the coastal hazard extent area.
	 Accept the risk and embrace coastal processes Embrace natural coastal processes without intervention or change to current management arrangements.