

RESILIENT COAST

DOUGLAS SHIRE COUNCIL



Our Resilient Coast

Douglas Shire is a place of spectacular beauty. Our coastal zone encompasses world-class landscape features, including pristine rainforest and beaches, and a diversity of cultural, economic and environmental values. The coast is highly valued by our Traditional Owners, Douglas communities and visitors to the area.

Coastlines are dynamic, ever-changing with each tide and storm event. Erosion and storm tide events are natural processes that shape the coast over long timeframes. However, these events become coastal hazards when they impact on our communities. Douglas Shire is prone to cyclone and storm events, and coastal hazard impacts are predicted to increase with a changing climate.

The State Government and Local Government Association of Queensland (LGAQ) provided funding to Queensland coastal Councils to develop a strategic approach to managing coastal hazards. With the funding awarded to Douglas Shire Council, we have developed the Resilient Coast Strategic Plan to help us proactively manage the risk of coastal hazards, both now and into the future (to 2100).

Our Resilient Coast Strategic Plan enables us to be better prepared to reduce the impacts of coastal hazards on our communities, environment, cultural values, infrastructure, liveability and services.

Purpose of the Strategic Plan

The purpose of the Resilient Coast Strategic Plan is to:

- Inform future decisions regarding the protection and management of our coast and foreshore
- Inform future land use planning
- Guide the management of public utilities and facilities
- Guide the management of areas of environmental and cultural significance
- Foster collaboration and the shared care of our coastline.

A transparent process

The Strategic Plan has been developed via a transparent process with all our Douglas communities. Community workshops were held in May and October 2018, at multiple venues including Mossman, Cape Tribulation and Port Douglas.

Other special interest groups also provided input and feedback via tailored briefings.



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Coastal hazards

As part of the Resilient Coast program, the existing mapping for Erosion Prone Areas and predicted storm tide inundation zones have been updated for the full Douglas Shire coastline. The coastal hazard assessment has followed a leading practice approach, including multiple event likelihoods and planning horizons.

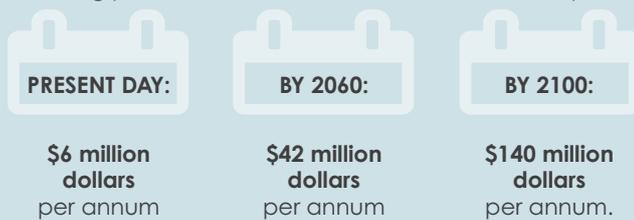
Future planning horizons (2060 and 2100) include sea level rise predictions (0.8 m by 2100) as required by State Government. Maps are provided in Supplement C to the Strategic Plan.

Likelihood of occurrence	Hazard AEP	Planning horizons
Likely	10%	Present-day, 2060, 2100
Possible	1%	Present-day, 2060, 2100
Rare	0.2%	Present-day, 2060, 2100

Risk and adaptation

Coastal hazards have the potential to have adverse impacts on Douglas Shire communities, services and lifestyle, in both the present day and by 2100. A detailed risk assessment has been undertaken to inform the Strategic Plan, as well as consideration of broad range of adaptation options to mitigate risk.

Implementing the adaptation approach and actions in the Resilient Coast Strategic Plan will contribute to avoiding potential economic costs to the Shire of up to:



FACT SHEETS IN THIS SERIES:

- Terminology
- Coastal landscape
- Coastal hazards
- Coastal adaptation
- Adaptation framework
- Building resilience
- Economics
- Strategic Plan summary

Douglas Shire Council recognise a shared responsibility for the management of coastal hazard risk; shared by Council, other land managers and private land owners. Council have a role to set the strategic adaptation response for different localities across the Shire.

Adaptation actions

Four themes of adaptation actions have been defined for the Strategic Plan, with a range of options that relate to mitigating the risk of coastal hazards.

The themes are:

1. Shire-wide initiatives to enhance resilience and adaptive capacity
2. Planning updates
3. Modifying infrastructure
4. Coastal management and engineering.

The Strategic Plan includes 35 priority 5 – 10 year actions. Priorities include:



A shire-wide dune protection and maintenance program. The dune system provides protection from erosion and storm tide impacts for the adjacent coastal land. Protection and maintenance of the dune has been demonstrated to substantially reduce coastal hazard damage costs to assets over time.



Shoreline Erosion Management Plans for Port Douglas and Newell.



Additional coastal engineering works to mitigate erosion to commence at limited locations by 2060.

Adaptation response and focus actions specific to different localities across the Shire are provided in the Plan.

Detailed cost-benefit analysis has been undertaken to inform the optimum coastal management and engineering actions, and timing of actions from now to 2100.

Strategic Plan and supporting materials

The Resilient Coast Strategic Plan and supporting materials (project updates, fact sheets) can be downloaded at the project website: <https://ourcoast.douglas.qld.gov.au/building-a-resilient-coast-for-the-douglas-shire>