

How we prepare for coastal hazards now, and in the future

Council manages coastal hazards through a mix of options, depending on the location and challenges. These can include:

Coastal dune management

Parts of our coastal landscape have well established and preserved coastal dune environments. Our coastal dunes provide a buffer against coastal hazards such as wind erosion, wave overtopping and tidal inundation during storm events.

Council's Woorim Beach sand back-passing trial project is an example of coastal dune management. Our region also has many community groups that help protect and enhance our coastal dune systems by undertaking weeding and plantings.

Defence structures

The Moreton Bay Region has many different coastal landscapes. Some of these landscapes require coastal engineering such as seawall defence structures to minimise coastal hazard impacts.

Planning

Although many parts of the Queensland coastline are less developed and able to avoid coastal hazards, our established region needs to adapt to become resilient to coastal hazards.

A resilient built form requires land use planning to set standards that account for future coastal hazard impacts. The Moreton Bay Regional Council Planning Scheme requires new developments to take into account predicted sea-level rise at the year 2100 through elevated floor levels.

Community awareness

Council is helping to create a resilient community by providing up to date and accurate information. Our region's residents and businesses have access to a range of tools so they can know what to do before a disaster, updated information during a disaster situation, and advice on what to do after a disaster.

To receive notifications for severe weather in our region, subscribe to MoretonAlert, a free SMS, email and voice alerting system. Visit www.mbrc.qld.gov.au/moretonalert

Adapting to future coastal hazards

Climate change and sea-level rise will continue to influence the severity of coastal hazards such as storm tide inundation and coastal erosion. Should sea levels continue to rise, impacts from coastal hazards are expected to become more severe. Council can work together with the community to build the resilience of our coastal landscape and adapt to coastal change.



Adaptation options include

Maintain

Continue to use the land and maintain the current risk level. These activities do not remove the risk or hazard.



Disaster management - The local disaster management plan outlines activities within the key stages of prevention, preparedness, response and recovery. Disaster management strengthens community disaster preparedness and coordinates systematic responses to potential coastal hazard events.



Education and awareness campaigns - Our region's residents and businesses have access to accurate natural hazard information to help protect family and property. The resources available include MoretonAlert, information on how to prepare your property, and information to understand your flood risk such as the Flood check property report.



Resilient infrastructure - Building or replacing infrastructure assets to be resilient to coastal hazards increases the service to the community and is necessary for the ongoing function of a settlement. It also minimises interruptions to services such as drainage, roads, water supply and electricity during and after coastal hazard events.



Land use planning - Zoning, development controls and risk mapping are employed to avoid the risks for new development. Coastal change ensures projected in-fill development is appropriate and a risk-based approach to planning is in place.

Modify

Use of physical interventions where the coastal hazard risk becomes intolerable. These activities protect the land from the sea.



Beach nourishment - The artificial addition of sand to a beach system can help buffer against coastal erosion. Beach nourishment is supported with vegetation to stabilise the coastal dune system. Continuous monitoring is required to inform when beach nourishment is required to "top up" the coastal dune system.



Seawalls - A wall or embankment structure put in place to stop tidal inundation or coastal erosion. They are often constructed in combination with beach nourishment and dune revegetation to provide a last line of defence under the coastal dune.



Groynes and artificial headlands - Built perpendicular to the coastline, it reduces the movement of sediment (sand and soil) along the coast. Sediment builds up between groynes to reduce coastal erosion.



Raising main access roads - Raising key access roads to a settlement can reduce the frequency of inundation and remove the risk of isolation to affected communities. Raising these roads ensures they remain available as an evacuation route, allows emergency services access and improves logistics during recovery.

Transition

Relocate or withdraw assets that are exposed to intolerable risks. These activities require withdrawing from the risk or hazard.



Land swap - This may be applied to assets or buildings that are impacted by intolerable risks where other options cannot be practicably applied. Land swap occurs between land that is at intolerable risk, and land that is not exposed to the risk.



Land use and tenure transition - Land use and tenure transition should be applied to areas subject to high hazards where it may be appropriate to cease occupation of the property in order to free residents from dangerous situations and intolerable risks.



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Speak with a technical officer on (07) 3205 0555
or email livingcoast@moretonbay.qld.gov.au



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