

FACTSHEET - Adaptation framework

A strategic approach and framework

Across Australia and internationally, coastal land managers are taking a strategic approach to managing the risk of coastal hazards. Common elements of this strategic approach include:

- A general first principle to avoid placing new assets in areas of high coastal hazard risk
- Developing a framework for adaptation, including adaptation response (Table 1) and options (Table 2)
- Assigning a strategic adaptation response to different localities, to guide decision making over present day, intermediate and 2100 planning horizons

- Assessing the range of adaptation options suitable in different locations to help mitigate the risk of coastal hazards
- Developing priority areas for future investigations, projects and actions, and embedding adaptation into Council's existing systems and operations.

Applying the framework

Adaptation response (Table 1) and options (Table 2) are informed by:

- Consultation with land owners, managers, local communities, and stakeholders
- The values and objectives for different locations
- An understanding of the risk of coastal hazards, and changing risk profile into the future
- A regional-scale perspective of the range of values, uses and pressures in the coastal zone.

Table 1. Adaptation framework

	Coastal hazard adaptation			
	Avoid	Monitor	Mitigate	Transition
Adaptation response	Avoid placing new development or assets in coastal hazard areas.	Monitor the risk of coastal hazards. Monitor until local trigger levels are reached to initiate mitigation.	Actively mitigate the risk of coastal hazards through a range of adaptation options. Mitigate until local trigger levels are reached to initiate transition.	A strategic decision to transition to an alternative land use in some areas. Mitigation may be part of the transition process.
Adaptation options		Monitoring and initiatives to enhance adaptive capacity	Full range of adaptation options	

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Table 2. Adaptation options

Theme	Adaptation options
Capacity building initiatives	Community stewardship
	Knowledge sharing
	Monitoring
Planning updates	Land use planning
	Disaster management
Modifying infrastructure	Increase infrastructure resilience
	Relocate infrastructure
Coastal management and engineering	Dune protection and maintenance
	Beach nourishment
	Structures to assist with sand retention
	Structures to dissipate wave energy
	Last line of defence structures
	Structures to minimise inundation

The broad adaptation responses are described as:

Avoid

The general first principle is to avoid placing new development or assets in coastal hazard areas. The preference is to develop (or transition) land use in coastal hazard areas to lower risk uses that still provide economic, social and environmental value to the region.

Any new development / infrastructure in coastal hazard areas is in accordance with council policy where on public land, as well as the State planning policy and approvals requirements, and includes necessary migration measures.

Monitor

At localities where the coastal hazard risk profile is low, the adaptation response is to monitor risk and undertake existing maintenance/asset management activities and continue active stewardship of the coastal zone.

If, over time, the risk profile is observed to increase (as indicated by local trigger levels), then the adaptation response may shift to mitigate.

Mitigate

At localities where coastal hazard risks have been identified, the adaptation response is to actively mitigate the risk through implementing a range of adaptation options. Adaptation options will be tailored to each locality, incorporating site-specific processes, community input, and statutory planning considerations.

If, over time, the risk profile is observed to increase (as indicated by local trigger levels), and mitigation becomes unfeasible (due to economic or other factors), then the adaptation response may shift to transition.

Transition

In some specific areas within a locality, if the coastal hazard risk profile is very high, and mitigation becomes unfeasible (due to economic or other factors), a strategic decision may be made to transition to an alternative land use.

Transition is likely to be a gradual process over time, where mitigating hazards for a period is part of the transition process. A range of adaptation options will be part of the transition process.