6.3 Reporting region 3: Gladstone / Barney Point

Landscape

Gladstone is situated along the coast at the mouth of the Calliope River (Figure 10). The city and surrounds are the major population centre in the Gladstone region.

This Reporting region is largely protected from coastal hazards by Facing Island. Much of the shoreline has been heavily modified, armoured with rock structures and seawalls, and breakwaters that shelter some areas from wave action. Land reclamation has resulted in additional land, including Spinnaker Park at Gladstone's marina and areas around Auckland Inlet.

Gladstone's natural deepwater harbour enables the operation of one of the largest, bulk commodity ports, servicing the mining and resources industry. In addition to the Port, this location also contains a high proportion of the region's industrial complexes and associated facilities.

Mangroves and wetlands of high ecological significance are some of the significant environmental values within the Gladstone area. There are also areas held under Native Title by the Bailai, Gurang, Gooreng Gooreng and Taribelang Bunda Peoples.

Coastal hazards exposure and implications

Gladstone is exposed to periodic tidal and storm tide inundation, and is likely to be increasingly exposed in the future. Low-lying areas, particularly around Auckland Inlet, Callemondah, and Barney Point are already being impacted by coastal hazards.

Gladstone's coastline, sheltered by Facing Island, experiences a relatively low energy wave climate and is not expected to be significantly impacted by open coast erosion.

The built up, urbanised nature of this coastline means there are a range of assets increasingly at risk of inundation, including ports and industrial infrastructure, utilities, dwellings and buildings in the Gladstone CBD, and roads and railways providing access to the city, port and marina.

The present day adaptation response for Reporting region 3 is to mitigate coastal hazard risk and begin preparations for transition of some areas (land use / assets in inundation areas) in the longer term (Table 15).

The adaptation pathway for Gladstone focusses on asset management planning, enhancing community adaptive capacity, updating disaster management arrangements, maintaining and upgrading existing infrastructure while undertaking some location-based transition planning for the long-term (2100). Region-wide actions also apply as applicable.



Figure 10. Reporting region 3 (Gladstone)

	Present Day	2060	2100
Adaptation response	Mitigate	Mitigate	Transition*
Adaptation actions			
1. Capacity building	As per region-wide actions, including:		
1.2 Knowledge sharing and collaboration	Enhance community adaptive capacity to coastal hazards, including awareness of increasing coastal hazard exposure and risk (particularly inundation) and ways to improve individual preparedness and adaptive capacity		
2. Planning updates	As per region-wide actions, including:		
2.1 Land use planning	In collaboration with asset stakeholders, develop and approach, including triggers, for a transition response for targeted areas of Gladstone in response to increasing long-term inundation exposure and risk. Incudes low-lying areas at Auckland Inlet, and residential areas at Gladstone East.		Implement transition plan
2.2 Disaster management	Update local disaster management planning for this locality based on updated coastal hazard maps		
3. Modifying infrastructure	As per region-wide actions, including:		
3.1 Build resilience	Review and update Council asset management plans to incorporate upgrades and modifications in inundation prone areas, and to other relevant community infrastructure (where practical).		
	Promote resilient buildings, homes, and infrastructure within the community		
3.2 Relocate infrastructure	Review and update Council asset management plans to develop a transition response for at-risk critical infrastructure (including commercial and industrial areas)		Relocate critical infrastructure
4. Coastal management and engineering	As per region-wide actions, including:		
4.2 Mangrove protection and maintenance	Collaborate with the relevant land manager to develop a mangrove protection and enhancement program within Gladstone Harbour, including at Auckland Inlet		
4.4 Additional coastal hazard protection works	Make the Strategic Plan and coastal hazard extents available to relevant asset and land managers to support maintenance and upgrade of existing public coastal hazard protection structures, in accordance with adaptation pathway planning. This includes rock revetments along Gladstone's foreshore, the marina and Spinnaker Park		
		In collaboration with relevant stakeholders, scope potential future works at Gladstone and Barney Point, in accordance with adaptation pathway planning, including concept options to manage increasing coastal hazards at Auckland Inlet and at-risk residential areas in Barney Point	

**A transition response may be appropriate for limited areas within zone*

Table 15. Reporting region 3 adaptation pathway