6.5 Reporting region 5: Turkey Beach

Landscape

Turkey Beach is a small coastal community located on an estuary within Rodds Bay (Figure 12). The community is situated on relatively low-lying land and there are large extents of mangroves, wetlands and creeks along the coastal zone. Turkey Beach is sheltered from open coast process by Rodds Peninsula.

This region has significant environmental value, including Eurimbula National Park. Rodds Peninsula is protected under Eurimbula National Park and is also a dugong protection area. Extensive seagrass meadows help to sustain an array of marine species including dugongs.

Reporting region 5 also holds significant recreational value for boating and fishing for residents and visitors, providing convenient access to the coastal environment.

Coastal hazards exposure and implications

Areas of Turkey Beach are exposed to periodic tidal inundation, particularly around The Esplanade and boat ramp. These areas and low-lying areas further inland are likely to be increasingly exposed in the future.

Assets that may be at increasing risk from inundation include the boat ramp, residential dwellings and buildings, and the main access road into the community, Turkey Beach Road. Increasing inundation may also impact sensitive and significant ecological areas within the region. By 2100 the level of inundation exposure for some areas in these communities may be beyond tolerance levels for current land uses.

There are some known erosion hotspots at Turkey Beach foreshore currently being managed via a Shoreline Erosion Management Plan (SEMP).

The present day adaptation response for Reporting region 5 is to mitigate coastal hazard risk and begin preparations for the transition of some areas (land use / assets in inundation areas) in the longer term (Table 16).

The adaptation pathway for this region focusses on enhancing community adaptive capacity, updating disaster management arrangements, mangrove enhancement, dune protection and maintenance, maintaining and upgrading existing infrastructure, including access to Turkey Beach and Eurimbula National Park, while undertaking some location-based transition planning for the long-term (2100). Region-wide actions also apply as applicable.



Figure 12. Reporting region 5 (Turkey Beach)

	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	Consider implications (within Council) and have regard to the new coastal hazard information presented in the Strategic Plan and Supplements, including: • Approval conditions for lots of undeveloped land • Implications for future development approvals and conditions.		Revised permit to occupy conditions to inform transition planning
	Develop approach, including triggers, for a transition response for targeted areas of Turkey Beach in response to increasing long-term inundation exposure and risk.		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	Promote resilient homes within the community		
		Review and update Council asset management plans, including feasibility, to incorporate upgrades and modifications to inundation and erosion prone areas of Turkey Beach, and to other relevant infrastructure (where practical). This may include access roads to Turkey Beach and Eurimbula National Park (where practical)	
4. Coastal management and engineering	As per region-wide actions, including:		
4.1 Dune protection and maintenance	Continue and expand the dune protection and maintenance program at Turkey Beach, based on existing Turkey Beach SEMP, including minimising disturbance to sensitive areas through access control, education, signage and revegetation.		
4.2 Mangrove protection and maintenance	Develop a mangrove protection and enhancement program within Rodds Bay and Turkey Beach foreshore, exploring synergies with existing monitoring and research programs, including seagrass.		
4.4 Additional coastal hazard protection works	Implement actions outlined in the Turkey Beach Shoreline Erosion Management Plan (SEMP)		

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

Table 17. Reporting region 5 adaptation pathway