5. REGION-WIDE ACTIONS SUMMARY

The priority actions across the region include a range of actions relevant to the four themes identified for the Plan:

1. Capacity building initiatives
2. Planning updates
3. Modifying infrastructure
4. Coastal management and engineering

Priority 5 – 10 year actions to each of these themes are summarised in Table 12, with some additional information / guidance in Supplement C to the Strategic Plan.

Adaptation response and actions specific to different localities across the region are provided in the location summaries (Section 6).

Theme	Strategic action no.	Description	Priority strategic actions (completed within 5 – 10 years)
1. Capacity building initiatives	1.1 Community stewardship program	Develop programs and collaboration opportunities to enhance stewardship of the coastline	1.1.1 Establish internal resourcing to support Strategic Plan implementation and stewardship activities 1.1.2 Establish dune protection and maintenance program, and mangrove protection and enhancement program, utilising a mix of Council and community input – and implement at relevant localities (linked to 4.1 and 4.2) 1.1.3 Seek co-funding/resources for further initiatives through grants and stakeholder collaborations
	1.2 Knowledge sharing and collaboration	Facilitate knowledge sharing and education on hazards and adaptation Knowledge sharing and collaboration	1.2.1 Continue to advance relationships and collaboration with Traditional Owners to further consider needs and aspirations for Aboriginal and Torres Strait Islander People in coastal hazard adaptation 1.2.2 Make the strategic plan available and provide communication materials on the Strategic Plan implementation and broader coastal management 1.2.3 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 – through training, education, events 1.2.4 Promote cross-sector collaboration and initiatives to enhance resilience and strategic adaptation for port and industry and associated operations

Table 12. Region wide actions

1. Capacity building initiatives	1.3 Monitoring	Monitor changes in coastal hazard risk and effectiveness of adaptation	1.3.1 Establish photo point monitoring system (Coastsnap, drone or similar) at key areas, and event-based monitoring, linking to dune and mangrove stewardship programs 1.3.2 Create a platform/process for data monitoring and management identifying synergies and collaboration opportunities, with existing monitoring programs.
	1.4 Research opportunities	Boost collaborative opportunities and undertake additional investigations to support adaptation	1.4.1 Establish collaborative opportunities with key universities and research centres and define key research projects for implementation over the next 5-10 years 1.4.2 Investigate local ecosystem responses/sensitivities to changing coastal hazards and management implications (linked to research partnerships) 1.4.3 Local industry resilience investigation, sensitivities to changing coastal hazards and management implications, including sea level rise and groundwater dynamics (linked to research opportunities).
2. Planning updates	2.1 Land use planning	Use the outcomes of the Strategic Plan to inform statutory planning and other strategic plans	2.1.1 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. 2.1.2 Use the updated Erosion Prone Area and storm tide mapping and outcomes of the Strategic Plan in current and future Planning Scheme updates to inform decisions on development areas and strategic land use planning 2.1.3 Consult with State Government regarding the Hummock Hill redevelopment, with consideration of future coastal hazard risks 2.1.4 Consult with State Government on permit to occupy arrangements, with consideration of future coastal hazard risks 2.1.5 Develop a long-term transition plan for targeted areas at some coastal localities.
	2.2 Disaster management	Update emergency response planning	2.2.1 Use the updated Erosion Prone Area and storm tide mapping, risk assessment and economic implications to update the Gladstone Regional Council Local Disaster Management Plan 2.2.2 Review the long-term adequacy of evacuation facilities and evacuation routes.

5. REGION-WIDE ACTIONS SUMMARY

3. Modifying infrastructure	3.1 Building resilience	Upgrading infrastructure, building resilient homes	3.1.1 Review at-risk infrastructure (from Strategic Plan data outputs) and embed risks into current asset management plans 3.1.2 Review access road renewals, upgrades (prioritisation), and design requirements with consideration of future coastal hazard risks 3.1.3 Promote resilient homes within the community (link in with knowledge sharing initiatives) 3.1.4 Make the Strategic Plan and new information of coastal hazard risks available to utility providers and collaborate on future services, upgrades and implications of coastal hazard areas 3.1.5 Make the Strategic Plan and new information of coastal hazard risks available to industrial and port infrastructure owners and collaborate on future infrastructure, upgrades and implications of coastal hazard areas.
	3.2 Relocate infrastructure	Relocate critical infrastructure	3.2.1 When updating asset management plans, consider the long-term (2100) coastal hazard risk, and consider options for relocation if needed 3.2.2 Develop a plan for the relocation of specific assets where defined in location-based pathways (if applicable).
4. Coastal management and engineering	4.1 Dune protection and maintenance	Minimise dune disturbance, maintain vegetation	4.1.1 Continue and expand the dune protection and maintenance program at Agnes Water and Tannum Sands using existing Shoreline Erosion Management Plans (SEMPs) at these locations as a foundation (linked to action 1.1.2) 4.1.2 Extend the dune protection and maintenance program more broadly to relevant locations (if needed).
	4.2 Energy dissipation approach – mangrove protection and enhancement	Protect and enhance mangrove communities that are providing shoreline protection	4.2.1 Develop a pilot a mangrove protection and enhancement program linked to existing Shoreline Erosion Management Plan (SEMP) actions 4.2.2 Extend and promote a mangrove protection and enhancement program more broadly (if needed).

4. Coastal management and engineering	4.3 Targeted investigations	Region-wide studies to better inform decision making for coastal management and engineering, and other actions	4.3.1 Review and update existing Shoreline Erosion Management Plans (SEMPs) at Wild Cattle Creek, Turkey Beach, Seventeen Seventy and Agnes Water based on new hazard and risk information, and develop new SEMPs for priority areas. 4.3.2 Undertake coincident flood modelling for Boyne River estuary to understand implications of the combined coastal and riverine processes for inundation and erosion vulnerability for the Gladstone coast (potential link to research collaboration) 4.3.3 Consult with the State Government regarding the future management of Round Hill Creek, with consideration of future coastal hazard risks. This may include additional assessment (on geomorphology and hydrodynamics) and further exploration of management options if significant changes in sediment dynamics occur, which may impact on coastal hazard risk. Potential link to research and to maritime safety collaboration.
	4.4 Additional coastal hazard protection works	Structures to minimise erosion and inundation	4.4.1 Maintain and upgrade existing public coastal hazard protection structures, in accordance with adaptation pathway planning 4.4.2 Collaborate with Ports on dredging operations (maintenance and capital), and identify opportunities to utilise the dredge material in hazard mitigation 4.4.3 Consult with State Government regarding non approved coastal hazard protection structures to determine the management approach to existing and future structures. 4.4.4 Scope potential future works, in accordance with adaptation pathway planning.