6.6 Reporting region 6: Agnes Water/ Seventeen Seventy

Landscape

Agnes Water and Seventeen Seventy are small coastal communities situated either side of Round Hill Headland (Figure 13). Round Hill Headland is a rocky outcrop that influences the sediment transport along this section of coastline.

Seventeen Seventy is located on the western, sheltered side of the headland, near the mouth of Round Hill Creek. Sandy beach ridges form barrier features across the estuary/delta zone. Tides and currents shape and change the Seventeen Seventy coastline.

Agnes Water is located on the eastern, exposed side of Round Hill Head. A parabolic dune system runs along the coastline at Agnes Water, which has experienced significant change in recent years, largely due to storm surges and wave action.

Round Hill Head is protected as a conservation park. There are also several areas at Seventeen Seventy containing wetlands of high ecological significance. Mangroves span the shoreline within Round Hill Creek inlet. The vegetated dunes at Agnes Water provide significant habitat and nesting areas for shorebirds and turtles.

This Reporting region is also important for tourism and recreation. Providing easy access for boating and fishing, and to the GBR, these communities are popular for Gladstone region residents and visitors. Agnes Water is the northernmost surf beach in Queensland. Seventeen Seventy also has significance in Australia's European history as the site of Captain Cook's landing. The region also provides opportunities for walking and camping.

Coastal hazards exposure and implications

Areas of Seventeen Seventy and Agnes Water are exposed to periodic erosion and inundation, particularly along Captain Cook Drive at Seventeen Seventy and Agnes Water Main Beach. These areas are at increasing risk of erosion and inundation in the future.

Assets that may be at increasing risk from erosion include Captain Cook Drive at Seventeen Seventy, 1770 campground, Agnes Water Main Beach, and dwellings and buildings within the hazard zone in both communities. Increasing erosion and inundation may also impact sensitive and significant ecological values, including turtle nesting sites and shorebird habitats.

The present day adaptation response for Reporting region 6 is to mitigate coastal hazard risk and begin preparations for transition of some areas (land use / assets in the Erosion Prone Area) in the longer term (Table 18). This includes active mitigation of open coast erosion at Agnes Water and Seventeen Seventy.

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



Figure 13. Reporting region 6 (Agnes Water/ Seventeen Seventy)

	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, and behaviour (via education, signage and enforcement).		
2. Planning updates	As per region-wide actions, including:		
2.1 Land use planning	Develop approach, including triggers, for a transition response for targeted areas of region in response to increasing long-term inundation and erosion exposure and risk. Includes at risk areas in Seventeen Seventy, camping ground, Captain Cook Drive, and some residential properties in Agnes Water.		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 to inundation and erosion prone sections of road and other relevant infrastructure. Includes Captain Cook Drive, infrastructure along Seventeen Seventy foreshore.		
	Promote resilient homes within low lying areas of the community		
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 Agnes Water and Seventeen Seventy using existing SEMP as a foundation, including minimising disturbance to sensitive areas, access control.		

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

Table 18. Reporting region 6 adaptation pathway

	Present Day	2060	2100
Adaptation response	Mitigate	Mitigate	Transition*
Adaptation actions			
4.2 Mangrove protection and maintenance	Develop a mangrove protection and enhancement program within Round Hill Creek and Seventeen Seventy foreshore.		
4.3 Targeted investigations	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	Progress and implement priority actions outlined in the Agnes Water & Seventeen Seventy Shoreline Erosion Management Plan (SEMP), including concept designs and approvals (with triggers) for management options.	Implement works as per adaptation pathway planning.	
	Scope potential future works at Seventeen Seventy in accordance with adaptation planning, including concept options for beach renourishment and groyne, to manage increasing coastal hazards at Seventeen Seventy and its access road (for both inundation and open coast erosion impacts)	Implement works as per adaptation pathway planning.	

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

Table 18. Reporting region 6 adaptation pathway