

TRINITY BEACH + TRINITY PARK

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Trinity Beach and Trinity Park are northern coastal communities 20km north of Cairns. Key features of these suburbs include the popular Earl Hill walking track, a marina, canal estates and foreshore dining and retail along Trinity Beach esplanade.



COMMUNITY ASSETS AT RISK BY 2100

- Beaches
- Foreshore
- Environmental areas (e.g. Saddle Mountain Drainage Reserve and Poolwood Drainage Reserve)
- Bluewater canal estate at Trinity Park
- Various roads (e.g. Vasey Esplanade and Reed Road)
- Supporting services (e.g. sewer and water networks)

PRIORITY
WHOLE OF COAST
ONGOING
ADAPTATION
ACTIONS



- Historically, the northern end of Trinity Beach suffered from erosion which resulted in construction of a rock seawall to protect the road
- Trinity Beach is relatively stable and protected by Taylor Point and Earl Hill
- Trinity Beach has a vegetated buffer between land-based assets and the shoreline which gradually narrows from north to south.
- Most areas of Trinity Park affected by coastal hazards are vegetated sites with lower-lying canal residential areas at highest risk
- Trinity Park Beach has experienced erosion since the construction of the entrance to Bluewater Canal.
- Entrance to the canal at Bluewater Estate has to be dredged regularly to keep access open

WHAT THE COMMUNITY VALUES

- Culturally significant sites
- Beaches and waterways
- Earl Hill tracks and trails heads at Trinity Park Beach
- Taylor Point
- War heritage
- Mangrove and native ecological areas

COMMUNITY ADAPTATION PRIORITIES

- Restoring wetlands to protect wildlife habitat
- Planning policy responses to provide a suitable buffer zone to coastal hazards
- Vegetation and dune management / construction
- Beach and foreshore management and monitoring (i.e. beach nourishment)
- Retain conservation areas south of Earl Hill

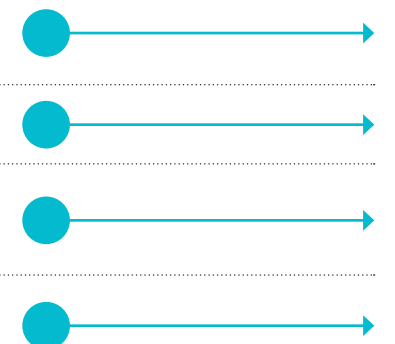
Local Adaptation Pathways to respond to coastal hazards

(For community assets, based on monitored sea level rise)

TIMING BASED ON SEA LEVEL RISE
SHORT TERM 0-0.3m MED TERM 0.3-0.6m LONG TERM >0.6m

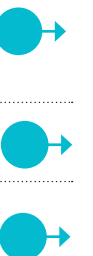
BEACH & FORESHORE MANAGEMENT

- Beach access management (remove unnecessary or informal access, formalise appropriate public paths and inspect and repair access after erosion)
- Beach scraping as required to reinforce dunes and reduce risks of erosion scarps
- Continue beach nourishment on Trinity Beach using sand dredged from Bluewater Channel and undertake small-scale beach nourishment at Trinity Park if required
- Dune construction to public areas on the southern end of Trinity Beach due to the narrow buffer between the shoreline and land-based assets



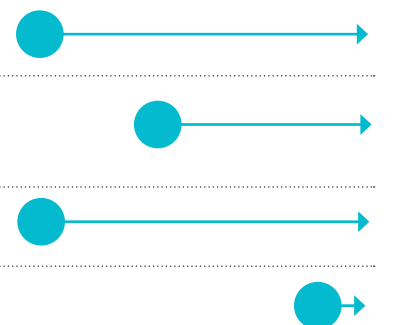
MODIFY INFRASTRUCTURE AND HAZARD RESILIENT DESIGN

- Plan to update or relocate existing infrastructure, including three sewerage pump stations and two public toilet blocks at Trinity Beach and nine sewerage pump stations at Trinity Park to be resilient to coastal hazards
- Relocate existing foreshore park assets that need updating or locate new assets outside the coastal hazard extent
- Manually change public land levels or road levels within coastal inundation hazard areas to reduce risk for new or upgraded assets. This should be focused on Coastline Parade Park



COASTAL ENGINEERING

- Maintain the existing rock retaining structure at the entrance to Half Moon Creek
- Extend existing rock retaining structures where required to protect public land, road and assets where dune management and beach nourishment is not viable
- Large groyne required to eliminate further shoreline recession near Bluewater Channel
- Tidal gate may be required near the mouth of Half Moon Creek at Trinity Park



ACCEPT THE RISK AND EMBRACE COASTAL PROCESSES

- Allow erosion of the foreshore in areas that do not have critical community assets, such as the vacant shoreline areas in Trinity Park

