HOLLOWWAYS + MACHANS BEACHES

Holloways Beach and Machans Beach are the northern beach suburbs closest to Cairns city and to the airport. These localities are well loved for their beaches, recreational activities, fishing spots, estuaries, wetlands, coastal cafes and sense of community.

**COMMUNITY ASSETS AT RISK BY 2100**

- Beaches
- Community infrastructure (e.g., Machans Beach Progress Association Hall and Holloways Beach Environmental Centre)
- Foreshore parks and environmental areas
- Tourist accommodation
- Important infrastructure (e.g. Australian Federal Police Asset and Radar Station)
- Various roads (e.g. Casuarina Street, O’Shea Esplanade and Marshall Street)
- Servicing (e.g. water and sewer pipes)

**WHAT THE COMMUNITY VALUES**

- Culturally significant sites
- Traditional Custodian values
- Beach and foreshore recreational areas
- Mangroves and fish habitat at river mouths
- Littoral rainforest

**COMMUNITY ADAPTATION PRIORITIES**

- Creek mouth management
- Dune vegetation management
- Coastal engineering in specific areas (i.e. tidal gate, levee)
- Planning considerations
- Maintain or enhance extent of current wetlands
- Modify existing infrastructure to be resilient to coastal hazards

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**MACHANS BEACH**

- **Erosion** has occurred along Holloways Beach causing a narrowing of dunes that protect shoreline development.
- **Beach nourishment** works have occurred at Holloways Beach which is typically placed seaward of the rock revetment to protect residences along Hibiscus Lane and maintain the foreshore. Recent groynes have been installed to reduce the need for sand nourishment.
- **Creek entrances** have typically supported the sand supply at Machans Beach however, a rock seawall built in 2016 has assisted in continuing to stabilise the beach. This has resulted in sand being deposited at the northern end of Holloways Beach which is used as a source for sand nourishment.

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**Local Adaptation Pathways to respond to coastal hazards**

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

<table>
<thead>
<tr>
<th>BEACH &amp; FORESHORE MANAGEMENT</th>
<th>SHORT TERM (0-0.3m)</th>
<th>MEDIUM TERM (0.3-0.6m)</th>
<th>LONG TERM (&gt;0.6m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Beach access management (remove unnecessary or informal access, formalise appropriate public paths and inspect and repair access after erosion) focusing on Redden Island</td>
<td>![Pathway Icon]</td>
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<tr>
<td>- Beach scraping as required to reinforce dunes and reduce risks of erosion scarp</td>
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<tr>
<td>- Undertake or continue beach nourishment to maintain beach width and visual amenity of public foreshore</td>
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<tr>
<td>- Dune construction along foreshore where dune crest is minimal</td>
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</table>

**MODIFY INFRASTRUCTURE AND HAZARD RESILIENT DESIGN**

- Plan to update or relocate toilet blocks and sewage pump stations, the boat ramp at Holloways Beach at end of design life, and ensure roads, bridges and trails are resilient to coastal hazards.
- Relocate existing foreshore park assets that need updating or locate new assets outside the coastal hazard area.

**COASTAL ENGINEERING**

- Maintain existing structures, including the groynes and seawalls protecting public infrastructure.
- Seawall may be required if dune management and beach nourishment are not viable, particularly for the southern portion of Machans Beach and Holloways Beach.
- Refurbish or realign the existing seawall at Holloways Beach to reduce erosion pressures.
- Consider small groynes to maximise benefit of beach nourishment, particularly for the northern end of Holloways Beach.
- Tidal gates around creek mouths as required.

**ACCEPT THE RISK AND EMBRACE COASTAL PROCESSES**

- Allow shoreline erosion where land is undeveloped, particularly to the north of Poinesettia Reserve at Holloways Beach and to the northern end of Machans Beach.

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**Monitoring**

- Community awareness and education
- Emergency management
- Planning considerations
- Native vegetation and habitat management

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**HOLLOWAYS + MACHANS BEACHES**

Monitoring awareness and education of community to be resilient to coastal hazards.


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**ENGINEERING**

RESILIENT DESIGN

AND HAZARD INFRASTRUCTURE

MODIFY

ONGOING ADAPTATION ACTIONS

PRIORITY WHOLE OF COAST

- Accept the risk and embrace coastal processes


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**Mapping**

Areas vulnerable to erosion or inundation (high tide and storm tide) if sea levels rise by 0.8 metres by 2100 as predicted, and no adaptation action is taken.

**Mapping is in draft form for consultation purposes.**